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NORTH AMERICAN BOUNDARY.

SUPPLEMENTARY REPORTS

RELATING TO

THE BOUNDARY

BETWEEN THE

BRITISH POSSESSIONS IN NORTH AMERICA

AND THE

UNITED STATES OF AMERICA,

UNDER

THE TREATY OF 1783.

*Presented to both Houses of Parliament by command of Her Majesty,
1842.*

LONDON:

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No. 1.

*Viscount Palmerston to Lieutenant Broughton and
Mr. J. D. Featherstonhaugh.*

Gentlemen,

Foreign Office, June 1, 1840.

COLONEL MUDGE and Mr. Featherstonhaugh, the Commissioners who were appointed on the 9th of July, 1839, to explore and survey the Territory in dispute between Great Britain and the United States of America, having been prevented by the advanced period of the season, from completing their examination and survey of that portion of the Boundary Line claimed by the United States, which lies north of the St. John, and in the vicinity of the River St. Lawrence; and Her Majesty's Government having determined that such examination and survey should now be completed, I have to acquaint you that you have been selected as joint-surveyors for that service.

I have accordingly to instruct you to lose no time in preparing the equipments and in selecting the instruments which will be requisite for this expedition, and you should get ready to proceed thereupon with the least possible delay.

It is intended that you should embark on board the steamer "Britannia," appointed to sail from Liverpool for Halifax on the 4th of July.

Upon landing at Halifax you will proceed forthwith to Fredericton, and you will there place yourselves in communication with Lieutenant-Governor Sir John Harvey, who will be instructed to furnish you with all requisite assistance and advice.

You will be accompanied from hence by Corporal McQueen, of the Royal Sappers and Miners, who was in the service of the Commissioners during the whole of their expedition in 1839; and you will take with you, upon your survey, such further assistance, either from the Sappers and Miners stationed in New Brunswick, or from the civil surveyors of that province, as, after consulting with Sir John Harvey, you may find necessary.

But if upon your arrival at Halifax you should there find any Sappers or Miners who have been employed on the topographical surveys of Ireland, and who are familiar with the use of instruments, you are authorized to request Sir Colin Campbell, Her Majesty's Lieutenant-Governor of Nova Scotia, to direct two of them to be placed under your orders.

After completing your arrangements at Fredericton, you will proceed to the point where the exploratory due north line which was marked out

by the British and American Commissioners in 1817 and 1818, from the monument at the head of the St. Croix, intersects the River St. John, and from that point of intersection, you will proceed along the said line to its northern termination, where it intersects the waters of the Metis; examining and recording the character of the country through which the said line runs, and ascertaining by spirit-levels and by barometrical observations, the heights of the principal points thereof.

It would be desirable that from the northern extremity of the said exploratory north line, you should proceed westward along the line of boundary which is claimed by the United States as far as the head of the Connecticut, and that you should continue your survey along the whole of that line. But the difficulties and impediments which would obstruct your progress through the first portion of the wild district through which that line passes, might be so great, that if you were, in the first place, to make an accurate survey of that portion of the line, you would not have time to examine before the end of the present season, other and more important parts of the said line; and therefore I think it better that you should reserve a minute survey of the first part of the line above-mentioned, until your other labours shall have been concluded.

I have accordingly to direct that, from the northern extremity of the above-mentioned exploratory north line, you should descend the Metis to its mouth in the St. Lawrence, accurately observing and recording the number of feet which the Metis falls during its course.

You will thence proceed westward along the south shore of the River St. Lawrence, making as you go along such general observations as may be practicable as to the character of that part of the country on the south side of the St. Lawrence, along which runs the line that is claimed as the boundary by the United States; and for the better accomplishment of this purpose, you will occasionally ascend such of the streams falling northward into the St. Lawrence as may afford you facilities for ascertaining any important facts.

In thus proceeding along the southern shore of the St. Lawrence, it will be your duty to explore and survey, with all possible accuracy, that portion of the line claimed by the United States which extends from the height of land nearest to the sources of the River Ouelle, and which, upon a map of the American surveyor, Hiram Burnham, alluded to at page 43 of the Report of Commissioners Mudge and Featherstonhaugh, is laid down as passing by the heads of the River Du Sud, and running to the north-west head of Connecticut River. You will take the height of points as you go along. But you will be particularly careful to note the character of the country, at any point at which the line claimed by the United States, as traced on the before-mentioned map of Hiram Burnham, may strike away from any elevated range of Highlands through which it may up to that point have been carried, and may stretch across any considerable tract of low and level land in its course towards the heads of the River Connecticut, dividing in its course, according to Hiram Burnham's map, the sources of the River Du Sud, the sources of the Etchemin, and the eastern sources of the River Chaudière, from the sources of the Mittawaquam and the south-western sources of the River St. John.

Having made your observations at the point where the line claimed by the United States is represented on the map of Hiram Burnham as striking away from the elevated range of Highlands laid down upon his map, it will be your duty to proceed along the line of Highlands represented on his map as dividing the sources of the rivers last-mentioned, to the north-western head of the Connecticut River.

From the sources of the Connecticut you will proceed to examine the country lying to the westward thereof, in order to ascertain at what distance from the sources of the Connecticut the forty-fifth parallel of north latitude is intersected by the range of elevated land, which, upon Map A of Commissioners Mudge and Featherstonhaugh, is laid down as extending in a south-westwardly direction from the sources of the Ouelle to the forty-fifth parallel of north latitude.

The object of this examination will be to ascertain whether the range of elevated land last-mentioned, and that more southern range, which, as

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laid down upon Map A, passes by the sources of the Connecticut, are separated from each other by any considerable distance of space, and whether the intervening district is a mountainous region connecting those two Ridges by a tract of country of a similarly elevated character, or whether that intervening district is comparatively flat and level, and separates those Ridges by the interposition of a country of a different character?

Having completed the survey of the above-mentioned portion of the Disputed Territory, you will transmit your Report thereof to this department with the least practicable delay; accompanying that Report with a copy of the Barometrical Register which you will have kept, recording the various observations you may have made for ascertaining the elevation of the country, and adding thereto a copy of the record of your daily operations by spirit-level from the River St. John to that point where the exploratory due north line intersects the waters of the Metis. To this you will annex sections of the elevations of the country along the lines which you are directed to survey, and a map of the same; accompanying the whole with the daily remarks you may have made with reference to the elevations of the lines of country you will have traversed.

If after the execution of this service, you should still have sufficient time to make any further progress before the season becomes too much advanced, you will then proceed to complete an accurate exploration and survey of the portion of the American line which lies between the River Metis and the sources of the River Ouelle.

But if the winter should set in before you have completed your surveys of the country between the point where the exploratory due north line intersects the waters of the Metis and the sources of the Ouelle, you are further instructed to remain, one or both of you, in America during the ensuing winter, and to take the earliest opportunity, when it shall be practicable, of finishing the survey of that part of the American line lying between the sources of the Ouelle and the waters of the Metis, transmitting, with the least possible delay, to this department, a detailed report of your proceedings. If this contingency should occur, further instructions will be transmitted to you as to the period of your return to this country.

I am, &c.,
(Signed) PALMERSTON.

No. 2.

*Viscount Palmerston to Captain Broughton and
Mr. J. D. Featherstonhaugh.*

Gentlemen,

Foreign Office, May 3, 1841.

HAVING completed the survey of the exploratory due north line to its termination, and descended the waters of the Metis to the mouth of the river of that name in the River St. Lawrence, you will now defer the execution of all that part of your instructions of the 1st of June, 1840, which relates to the immediate examination in a direction westward from the termination of the exploratory due north line, of that part of the line claimed by the United States; from thence to the head of the Connecticut, making the examination of all that part of the country comprehended between those two points; as it is detailed and enjoined upon you in your above-mentioned instructions, subsequent to the investigations which I am now about to instruct you to make in the first instance, and leaving it to be examined at the close of the present season.

Instead, therefore, of proceeding from the waters of the River Metis to the immediate examination of the country lying to the westward, you will proceed, in the first instance, to the head waters of the Connecticut River, and from thence in a north-easterly direction along the Highlands which lie between the waters of the Chaudière River and the waters of Kennebec River,—as laid down in Map A of the Report of Colonel

Mudge and Mr. Featherstonhaugh,—to the Kennebec Road leading to Quebec, taking the elevation of all the highest summits of this chain of Highlands with your barometers, including Bald Mountain and any other conspicuous summits not too distant from your line of operation. From the Kennebec Road before-mentioned you will follow the continuation of the chain of Highlands before-mentioned in a more easterly direction; and as it is laid down upon Map A, extending to Lake Kééaquagam, and dividing the western sources of the Penobscot River from the southern and south-western sources of the River St. John. You will take barometrical observations from the principal summits of this continuation of the Chain, and you will note the point where Mr. Campbell terminated his exploration in the year 1820.

When you have completed this part of your duty you will then proceed from the Kennebec Road before-mentioned, in the direction of Lake Etchemin, and along a line separating the sources of the streams flowing into the St. Lawrence, from the sources of the streams flowing into the River St. John, which line corresponds with the assumed range of hills referred to in Map A before-mentioned, as having been originally brought forward by Hiram Burnham, an American surveyor. Upon this line, which you will pursue in a direct course by the sources of the Du Sud to the River St. Lawrence, you will carefully take the elevations of the country with your barometers, noting the exact nature of the country in your Field Books, especially with reference to any chain of Highlands which has been asserted to exist along the line before referred to. When you shall have completed this branch of the service, you will then attend to the other duties prescribed to you in your instructions of the 1st of June, 1840, and which are not comprehended in the instructions hereby delivered to you, and will carry them all out if the season admits of your doing so.

As it may be found advisable that you should establish two permanent stations for observation by barometer, one at Quebec and the other at Lake Etchemin, you will be furnished with a letter to his Excellency the Governor-General of Canada, requesting him to authorize the necessary facility towards the establishment of one of your observatories in a building on the Queen's Wharf at Quebec.

I am, &c.,
(Signed) PALMERSTON.

No. 3.

Capt. Broughton and Mr. J. D. Featherstonhaugh to Viscount Palmerston.

My Lord,

Quebec, November 28, 1840.

WE have the honour, in laying the result of our work up to this period before your Lordship, to report the proceedings of the Expedition from its commencement.

After completing our arrangements at Fredericton, we proceeded to the Grand Falls on the River St. John, and arrived there on the 12th August; on our arrival we found the woods were in such a state of total wilderness that the eight men we had sent on to clear the exploratory due north line made in 1817—1818, could not effect the clearing at the rate necessary to keep them in advance of the Levelling Party, and consequently we were obliged to encrease their number. This delay rendered it useless proceeding to the woods until a sufficient distance had been cleared to ensure the line-men keeping in advance. We accordingly remained at the Grand Falls, where we established an observatory for standard observations, to which we could refer those afterwards made. Having arranged this, on the 20th we sent off all the provisions by canoes to form a dépôt beyond the portage on the Restigouche, reserving only sufficient to last the Levelling Party as far as the Grand River. On the 22nd, the line-men having cleared to within four miles of the Grand River,

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we decided to commence the levelling. Our daily proceedings will be found recorded in the annexed Levelling Registry; we therefore proceed at once to observe upon the nature of the ground over which we passed.

Upon reference to the accompanying section, your Lordship will observe, that from the St. John to Grand River, a distance of fourteen miles, the highest elevation is about 530 feet above the St. John, or 830 above the sea, presenting a gentle slope for half its distance, and descending gradually to the Grand River, which is 163 feet above the St. John.

After leaving Grand River, (which, on account of its winding character in this part, is crossed by the line three times in a space of less than a mile,) the country, by a gentle inclination, resumes the height before referred to of about 830 feet above the sea, and then falling off to the Wagan, (a branch of the Restigouche, which rises in the same low valley with a branch of Grand River called the Wagansis,) continues a low flat, as far as the main Restigouche, at a distance of twenty-four miles and a quarter from the St. John. The water in the Restigouche, at this point, is 137 feet above the St. John.

From the Restigouche, the country offers a regular surface not much broken or indented by courses of streams, until at the distance of about seven miles and a half along the exploratory due north line, it attains a gradual elevation of 800 feet above the St. John, and then as gradually descends to the Mempticook, the intersection of which by the due north line is 270 feet above the St. John. On leaving the Mempticook, the ground rises gradually to 1,300 feet above the St. John, and preserves the same general elevation for some miles, but intersected by numerous brooks, (tributaries of the Quatawamkedgwick,) remarkable for the depth and precipitous character of the ravines they form, and the broken appearance they give the country.

Before reaching this last-named river, the ground on the south bank suddenly descends from 1,083 feet above the St. John to only 158, giving a bold and precipitous character to this portion of the country. The Quatawamkedgwick flows in a valley about half a mile wide, the ground on the north side rising in a short distance to an elevation of 1,213 feet above it, and continues rising, but more gradually, until it attains the height of 1,410 feet above the St. John, which is the highest land on the exploratory due north line. The line then for five miles passes along a country gradually falling off to 509 feet above the St. John. Through this depression a tributary of the Quatawamkedgwick flows, called States Brook, which runs in a general north and south direction, at no great distance from the due north line. From this stream the ground rises to 1,121 feet above the St. John, and then begins to descend gradually to the Beaver Stream, its regularity being only broken by two small brooks, tributaries of the Restigouche. To the north of the last of these brooks is an elevation of 1,012 feet above the St. John, which divides the waters of the Bay de Chaleurs from those flowing into the St. Lawrence.

The exploratory due north line terminates in a low swampy flat, through which flows a narrow brook called Beaver Stream, being one of the sources of the Metis, and then diffuses itself into a small lake to the westward. We found on exploring the stream, below this lake for some distance, that it was impassable for canoes, we therefore were obliged to cut a portage sufficient for the passage of baggage and canoes parallel with the stream for about two miles, where, finding the water deeper, we embarked on the morning of the 9th October.

The navigation of the stream we found nearly wholly obstructed by natural dams of fallen timber and alders, which, growing on the banks, had crossed each other; by severe labour we were able to cut and effect a passage for the canoes which had then to be dragged through, and which, owing to the severity of the weather, (it snowing hard,) was a work of great exertion and difficulty. The stream always preserves the same character to Lake Metis, and afterwards, on leaving the lake, changes to a rapid rocky river, very difficult of navigation, and which, although descending, occupied us until the evening of the 15th, when we reached its mouth on the St. Lawrence.

The Barometric Observations along the line will be found under their respective dates, but we beg to refer your Lordship to page 56, where an abstract will be found of the mean results of all the observations made at the Beaver Stream, at the termination of our line, and at the different stations during the course of this river.

It would be superfluous further to take up your Lordship's time with the account of the various difficulties we had to encounter in the course of this long journey, or to dwell upon the many hardships we had to endure; we only trust your Lordship will do us the justice to believe we underwent them cheerfully in the execution of this important duty, and that no pains were spared to expedite the commission as far as was practicable.

On arriving at the River Ouelle, we were overtaken by snow, which precluded our re-entering the forest, although preparations were made for that purpose, and we were eventually driven into Quebec by the severity of the weather.

Knowing the importance of transmitting our information to your Lordship at an early period, we have used unremitting diligence in preparing our Report and section, and copies of all our notes in order to lay them before your Lordship as soon as possible after the close of our field duties for the season.

We have, &c.,

(Signed) W. E. DELVES BROUGHTON,
Royal Engineers.

(Signed) J. D. FEATHERSTONHAUGH.

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*Levelling Registry of due North Line from the River St. John to the
Beaver Stream.*

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
0					*0.00	R. St. John, abv. Gd. Falls.
1	30	9.92	1.16	8.76	8.76	August 24.
2	77	11.11	1.35	9.76	18.52	
3	106	10.04	0.50	9.54	28.06	
4	212.5	10.98	0.35	10.63	38.69	
5	247	11.49	0.15	11.37	49.96	
6	272	10.61	0.31	10.29	60.25	
7	297	10.81	0.16	10.65	70.90	
8	329	11.75	0.08	11.67	82.57	Hardwood, Yellow Birch,
9	401	11.40	0.27	11.13	93.40	and Maple.
10	451	5.70	0.00	5.70	99.40	
11	724	0.00	0.37	0.37	99.03	
12	899	10.76	0.68	10.08	109.11	
13	1,331	8.70	2.68	6.02	115.13	
14	1,776	7.11	0.51	6.60	121.73	
15	2,110	8.07	0.40	7.67	129.40	
16	2,581	7.71	4.91	2.80	132.20	
17	2,861	8.97	0.49	8.48	140.68	
18	2,999	11.80	0.77	11.03	151.71	
19	3,210	10.09	0.56	9.53	161.24	
20	3,367	11.83	1.10	10.73	171.97	
1	3,504	11.24	0.16	11.08	183.05	
2	3,604	5.04	1.47	3.57	186.62	
3	3,809	11.37	0.21	11.16	197.78	
4	4,044	10.73	1.18	9.55	207.33	
5	4,324	9.90	2.07	7.83	215.16	
6	4,885	4.43	6.05	1.62	213.54	Bench mark, No. 1.
7	5,347	8.33	0.31	8.02	221.56	August 25.
8	5,721	12.56	2.90	9.66	231.22	
9	6,035	9.95	0.30	9.65	240.87	
30	6,370	12.44	0.43	12.01	252.88	
1	6,670	12.44	0.67	11.77	264.65	
2	7,110	9.98	3.66	6.32	270.97	
3	7,703	4.57	4.26	0.31	271.28	
4	8,219	0.69	4.65	3.96	267.32	
5	8,465	17.36	1.86	15.50	282.82	Bench mark, No. 2.
6	8,520	11.22	7.41	3.81	286.63	August 26.
7	8,570	7.41	1.37	6.04	292.67	
8	8,740	11.09	0.13	10.96	303.63	
9	8,920	11.05	1.50	9.55	313.18	
40	9,095	11.12	0.14	10.98	324.16	
1	9,280	10.72	0.47	10.25	334.41	
2	9,440	10.62	0.34	10.28	344.69	
3	9,580	10.84	0.84	10.00	354.69	
4	9,780	10.81	1.06	9.75	364.44	
5	10,045	10.50	3.80	6.70	371.14	Hardwood.
6	10,320	3.80	8.01	4.21	366.93	
7	10,720	1.49	7.38	5.89	361.04	
8	10,970	1.72	2.00	0.28	360.76	
9	11,150	2.80	8.12	6.12	354.64	
50	11,380	0.18	10.17	9.99	344.65	
1	11,410	0.29	13.88	13.59	331.06	
2	11,490	0.60	10.46	9.86	321.20	
3	11,590	0.62	10.89	10.27	310.93	
4	11,660	0.50	10.88	10.38	300.55	
5	11,820	0.21	10.98	10.77	289.78	
6	11,950	0.29	11.01	10.72	279.06	
7	12,040	0.57	10.93	10.36	268.70	
8	12,160	0.33	10.78	10.45	258.25	Cedar swamp.
9	12,370	0.74	11.10	10.36	247.89	
60	12,590	0.88	8.93	8.05	239.84	Small brook running west.
1	12,835	4.98	0.93	4.05	243.89	
2	13,070	10.92	0.85	10.07	253.96	
3	13,345	11.01	0.21	10.80	264.76	
	13,345				264.76	Carried over.

* The intersection of the River St. John by the exploratory due North Line, has been determined to be 300 feet above high tide at Chapel Bar in the River St. John.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	13,345				264.76	Brought up.
64	13,570	7.46	1.34	6.12	270.88	
5	13,790	11.00	1.32	9.68	280.56	
6	13,920	6.57	4.30	2.27	282.83	
7	14,280	4.30	1.94	3.06	285.89	
8	14,490	4.56	4.56	0.00	285.89	
9	14,720	4.56	2.30	2.36	288.25	
70	15,190	5.26	4.08	1.23	289.48	
1	15,660	2.52	2.24	.28	289.76	
2	16,035	3.58	1.21	2.37	292.13	
3	16,420	9.78	3.91	5.87	298.00	Bench mark, No. 2.
4	16,830	2.34	7.25	4.91	293.09	August 27.
5	17,420	2.81	2.87	0.06	293.03	
6	17,960	7.48	1.96	5.52	298.55	
7	18,210	6.35	0.97	5.38	303.93	
8	18,670	4.63	2.05	2.60	306.53	
9	19,220	2.80	4.54	1.74	304.79	
80	19,810	8.41	3.55	4.86	309.65	
1	19,990	4.98	0.37	4.61	314.26	
2	20,260	11.66	0.32	11.34	325.60	
3	20,620	7.43	0.14	7.29	332.89	Cedar swamp.
4	20,850	8.63	0.11	8.52	341.41	
5	21,220	3.08	0.78	2.30	343.71	
6	21,490	5.87	0.89	4.98	348.69	
7	21,720	10.33	1.33	9.00	357.69	
8	21,910	9.17	1.54	7.63	365.32	Birch and Maple.
9	22,160	9.80	0.52	9.28	374.60	
90	22,320	11.27	0.47	10.80	385.40	
1	22,460	11.30	1.09	10.21	395.61	
2	22,620	10.30	1.67	8.63	404.24	
3	23,020	12.11	1.05	11.06	415.30	
4	23,420	10.23	4.50	5.73	421.03	
5	23,920	4.50	5.10	0.60	420.43	
6	24,120	6.08	4.50	1.58	422.01	
7	24,352	4.50	7.07	2.57	419.44	
8	24,865	0.77	2.47	1.70	417.74	Bench mark, No. 4.
9	25,242	10.64	1.19	9.45	427.19	August 28, at 163 of 513
100	25,645	6.38	1.17	5.21	432.40	reserved road run-
1	25,955	11.60	1.25	10.35	442.75	ning east and west.
2	26,365	7.50	1.18	6.32	449.07	
3	26,870	9.65	4.33	5.32	454.39	
4	27,320	2.61	10.44	7.83	446.56	
5	27,655	2.62	10.28	7.66	438.90	
6	28,065	2.84	4.94	2.10	436.80	
7	28,555	2.31	10.73	8.42	428.38	
8	29,015	1.00	7.01	6.01	422.37	
9	29,275	1.47	10.24	8.77	413.60	
110	29,475	1.82	11.01	9.19	404.41	
1	29,713	0.06	10.70	10.64	393.77	
2	30,030	2.34	1.30	1.04	394.81	Bench mark, No. 5.
3	30,277	7.23	1.88	5.35	400.16	August 29.
4	30,615	5.28	2.30	2.98	403.14	
5	30,975	1.66	8.95	7.29	395.85	
6	31,267	1.10	5.59	4.49	391.36	
7	31,483	5.62	1.97	3.65	395.01	
8	31,788	6.73	1.07	5.66	400.67	
9	32,093	5.97	2.58	3.39	404.06	
120	32,416	7.19	1.70	5.49	409.55	
1	32,672	12.51	1.20	11.31	420.86	
2	32,952	12.30	1.37	10.93	431.79	
3	33,252	10.45	4.00	6.45	438.24	
4	33,567	4.00	4.75	.75	437.49	
5	33,855	2.48	11.11	8.63	428.86	Cedar swamp.
6	34,320	3.60	10.58	6.98	421.88	
7	34,458	0.74	7.82	7.08	414.80	
8	34,718	5.61	4.94	0.67	415.47	
9	34,961	3.94	0.19	3.75	419.22	
	34,961				419.22	Carried up.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	34,961				419.22	Brought up.
130	35,150	9.22	0.35	8.87	428.09	
1	35,323	12.46	0.66	11.80	439.89	
2	35,669	2.31	1.15	1.16	441.05	
3	35,975	3.44	1.15	2.29	443.34	
4	36,166	1.65	1.21	.44	443.78	
5	36,449	3.13	2.12	1.01	444.79	
6	36,645	11.53	0.57	10.96	455.75	
7	36,760	12.90	.87	12.03	467.78	
8	36,973	12.67	.09	12.58	480.36	
9	37,036	13.48	.11	13.37	493.73	
140	37,204	10.	1.53	8.47	502.20	
1	37,372	5.66	10.83	5.17	497.03	
2	37,922	10.21	9.23	.98	498.01	
3	38,328	8.91	0.63	8.28	506.29	
4	38,543	11.70	1.06	10.64	516.93	Hardwood, Yellow Birch,
5	38,962	12.13	1.34	10.79	527.72	Maple, Pine.
6	39,589	11.40	8.64	2.76	530.48	
7	40,043	3.35	11.05	7.75	522.73	
8	40,479	2.15	10.97	8.82	513.91	
9	41,052	.95	7.64	6.69	507.22	
150	41,404	.22	7.55	7.33	499.89	
1	42,006	2.91	7.30	4.39	495.50	
2	42,551	1.57	11.57	10.	485.50	Spring.
3	43,094	3.65	4.56	.91	484.59	
4	43,542	8.14	1.36	6.78	491.37	
5	43,952	4.63	9.90	5.27	486.10	
6	44,387	1.16	11.38	10.22	475.88	
7	44,687	1.83	5.27	3.44	472.44	
8	45,234	3.13	3.82	.69	471.75	
9	45,624	10.62	.55	10.07	481.82	Bench mark, No. 6.
160	46,151	13.79	1.70	12.09	493.91	August 30.
1	46,808	13.10	4.75	8.35	502.26	Cedar swamp.
2	46,940	1.12	10.90	9.78	492.48	
3	47,322	.58	5.39	4.81	487.67	
4	47,890	3.42	11.89	8.47	479.20	
5	48,222	.43	10.25	9.82	469.38	
6	48,502	.86	2.02	1.16	468.22	
7	48,953	8.33	.55	7.78	476.00	
8	49,258	6.46	.69	5.77	481.77	
9	49,572	2.61	3.48	.87	480.90	Hardwood.
170	50,175	4.81	6.64	1.83	479.07	
1	50,634	3.49	6.51	3.02	476.05	
2	51,270	.04	10.73	10.69	465.36	Cedar swamp.
3	51,830	2.56	3.38	.82	464.54	
4	52,336	5.15	1.92	3.23	467.77	Bench mark, No. 7.
5	53,040	6.73	10.51	3.78	463.99	August 31.
6	53,186	.63	10.84	10.21	453.78	
7	53,566	.44	10.39	9.95	443.83	
8	53,850	.11	10.70	10.59	433.24	
9	54,297	1.80	7.78	5.98	427.26	Cedar swamp.
180	54,525	5.98	.91	5.07	432.33	
1	55,078	4.81	1.74	3.07	435.40	
2	55,396	8.07	.76	7.31	442.71	
3	55,932	12.58	1.29	11.29	454.00	
4	56,486	3.41	11.15	7.74	446.26	
5	56,771	.73	11.24	10.51	435.75	
6	56,871	.53	10.75	10.22	425.53	
7	57,064	.00	11.52	11.52	414.01	
8	57,476	.32	11.20	10.88	403.13	
9	57,996	.51	10.76	10.25	392.88	
190	58,432	6.85	10.67	3.82	389.06	
1	59,026	1.15	11.48	10.33	378.73	Brook running west into
2	59,356	7.59	.47	7.06	385.79	the Grand River.
3	60,056	13.31	11.40	1.91	387.70	At 290, large brook run-
4	60,676	.86	11.44	10.58	377.12	ning west.
5	61,052	5.68	1.53	4.15	381.27	
	61,052				381.27	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	61,052				331.27	Brought up.
196	61,497	5.40	10.53	5.13	376.14	
7	61,907	.90	8.35	7.45	368.69	
8	62,549	3.72	7.99	5.27	363.42	At 542, large brook run-
9	62,934	5.21	3.24	1.97	365.39	ning north-east.
200	63,393	4.58	.57	4.01	369.40	
1	63,629	10.02	.17	9.85	379.25	
2	63,985	1.53	.26	1.27	380.52	
3	64,453	9.22	1.87	7.35	387.87	Bench mark, No. 8.
4	64,734	10.79	1.83	8.96	396.83	September 1.
5	65,271	10.99	4.16	6.83	403.66	Cedar swamp.
6	65,866	10.41	.45	9.96	413.62	
7	66,220	8.16	1.61	6.55	420.17	
8	66,646	8.29	6.68	1.61	421.78	
9	67,005	3.03	8.77	5.74	416.04	
210	67,461	2.04	1.95	.09	416.13	Hardwood.
1	67,908	7.85	1.05	6.80	422.93	
2	68,283	12.76	.41	12.35	435.28	
3	68,728	2.09	8.19	6.10	429.18	Cedar swamp.
4	69,421	3.42	3.67	.25	428.93	
5	70,281	2.47	10.92	8.45	420.48	Hardwood.
6	70,640	1.67	10.80	9.13	411.35	
7	70,754	.59	10.93	10.34	401.01	
8	70,864	.37	10.75	10.38	390.63	
9	70,959	.35	11.30	10.95	379.68	
220	71,091	.51	10.94	10.43	369.25	Cedar swamp.
1	71,213	.40	11.60	11.20	358.05	
2	71,308	.17	11.13	10.96	347.09	
3	71,412	.09	11.11	11.02	336.07	
4	71,562	.00	11.05	11.05	325.02	
5	71,690	.36	10.67	10.31	314.71	
6	71,809	.50	10.88	10.38	304.33	
7	71,931	.57	10.46	9.89	294.44	
8	72,039	.14	11.40	11.26	283.18	
9	72,136	1.08	10.56	9.48	273.70	Top of steep bank.
230	72,196	.37	10.49	10.12	263.58	
1	72,331	.39	10.79	10.40	253.18	
2	72,488	1.34	9.63	8.29	244.89	
3	72,693	1.87	8.77	6.90	237.99	Strm. 30 ft. wide runng. E.
4	72,933	2.29	1.11	1.18	239.17	Rivulet running east.
5	72,996	11.	1.48	9.52	248.69	Rivulet running east.
6	73,138	13.24	.60	12.64	261.33	Hardwood.
7	73,349	11.33	.63	10.70	272.03	
8	73,871	8.68	9.63	0.95	271.08	
9	73,949	5.84	.64	5.20	276.28	Cedar swamp.
240	74,183	11.79	1.47	10.33	286.60	
1	74,683	8.05	2.78	5.27	291.87	
2	74,933	5.09	.91	4.18	296.05	
3	75,259	3.15	2.79	.36	296.41	
4	75,730	3.29	7.50	4.21	292.20	
5	76,051	1.54	8.34	6.80	285.40	
6	76,416	1.33	6.81	5.48	279.92	
7	76,675	.94	8.40	7.46	272.46	
8	76,925	5.95	1.85	4.10	276.56	
9	77,239	2.37	9.38	7.01	269.55	
250	77,385	1.11	10.74	9.63	259.92	
1	77,512	1.34	10.95	9.61	250.31	
2	77,631	.00	13.08	13.08	237.23	
3	77,750	.76	10.99	10.23	227.00	
4	77,820	1.90	10.99	9.09	217.91	
5	77,867	1.54	10.92	9.38	208.53	
6	77,934	.24	10.03	9.79	198.74	Swampy bank.
7	77,990	.57	15.98	15.41	183.33	September 2.
8	78,026	.00	16.25	16.25	167.08	
9	78,089	1.83	5.70	3.87	163.21	Level of water in Grand
						River.
260	78,427	4.20	4.17	.03	163.24	Width of river at L. 115ft.
	78,427				163.24	North bank of river, 14 m., 4,507 ft.

No. of Station.
261
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320
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Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	78,427				163.24	Brought up.
261	78,777	6.87	4.32	2.55	165.79	
2	79,457	2.70	5.21	2.51	168.28	
3	80,143	2.56	7.47	4.91	158.37	
4	80,624	3.88	4.11	.23	158.14	
5	80,903	3.57	8.35	4.78	153.36	Level of water at a bend of the Grand River.
6	81,083	8.35	4.20	4.15	157.51	At 213 feet from the 607 level of water at an- other bend in Grand R.
7	81,690	3.02	4.92	1.90	155.61	Level of water.
8	82,103	2.50	8.21	5.71	149.90	
9	82,267	8.21	.72	7.49	157.39	
270	82,504	9.54	.68	8.86	166.25	
1	82,612	10.78	.09	10.69	176.94	
2	82,701	10.33	.84	9.49	186.43	
3	82,940	7.04	.87	6.17	192.60	
4	83,177	3.22	10.07	6.85	185.75	Bench mark, No. 9.
5	83,336	1.45	8.00	6.55	179.20	September 3.
6	83,614	8.95	.76	8.19	187.39	Rivulet running to west.
7	83,722	11.27	.93	10.34	197.73	Cedar swamp with soft and deciduous wood.
8	83,860	10.16	.00	10.16	207.89	
9	84,007	12.26	.59	11.67	219.56	
280	84,163	12.52	.03	12.49	232.05	
1	84,312	10.76	.65	10.11	242.16	
2	84,449	12.07	.45	11.62	253.78	
3	84,618	11.71	.24	11.47	265.25	
4	85,038	11.14	2.26	8.88	274.13	Cedar swamp.
5	85,336	10.20	.50	9.70	283.83	
6	85,526	12.16	.00	12.16	295.99	
7	85,696	10.72	.34	10.38	306.37	
8	85,842	10.63	.35	10.28	316.65	
9	86,024	12.21	.00	12.21	328.86	
290	86,182	11.86	.40	11.46	340.32	
1	86,355	13.62	.00	13.62	353.94	
2	86,444	11.00	.15	10.85	364.79	
3	86,590	10.88	1.09	9.79	374.58	
4	86,708	10.93	.01	10.92	385.50	
5	86,950	7.50	11.12	3.62	381.88	
6	87,003	.23	10.79	10.56	371.32	Cedar bottom.
7	87,085	.66	11.26	10.60	360.72	
8	87,306	.12	11.1	10.88	349.84	
9	87,492	10.49	.00	10.49	360.33	
300	87,791	13.04	.19	12.85	373.18	
1	88,106	7.27	.76	6.51	379.69	
2	88,180	10.55	.08	10.47	390.16	
3	88,323	13.27	.31	12.96	403.12	
4	88,426	12.02	1.86	10.16	413.28	
5	88,531	11.94	.00	11.94	425.22	
6	88,611	11.63	.52	11.11	436.33	
7	88,697	11.44	.60	10.84	447.17	
8	88,751	11.44	.08	11.36	458.53	
9	88,809	11.44	.00	11.44	469.97	
310	88,883	11.28	.00	11.28	481.25	
1	89,165	8.16	.30	7.86	489.11	
2	89,235	10.73	.23	10.50	499.61	
3	89,477	7.87	10.60	2.73	496.88	
4	89,998	5.65	11.40	3.55	491.33	
5	90,104	1.24	11.55	10.31	481.02	
6	90,162	.02	11.52	11.50	469.52	
7	90,220	.00	11.02	11.02	458.50	
8	90,548	.68	6.43	5.75	452.75	
9	90,635	10.73	.40	10.33	463.08	
320	90,688	11.34	.13	11.21	474.29	
1	90,801	9.20	.26	8.94	483.23	
2	90,884	12.00	.17	11.83	495.06	
3	90,979	11.33	.41	10.92	505.98	
4	91,316	7.30	10.76	3.46	502.52	
	91,316				502.52	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	91,316				502.52	Brought up.
325	91,488	.23	10.89	10.66	491.86	
6	91,632	.98	10.95	9.97	481.89	
7	91,928	.61	6.72	6.11	475.78	
8	92,152	1.28	11.21	9.93	465.85	
9	92,453	.42	1.07	.65	465.20	
330	92,661	10.02	1.10	8.92	474.12	
1	92,827	10.89	1.47	9.42	483.54	
2	93,023	10.13	3.04	7.09	490.63	Bench mark, No. 10. September 4.
3	93,343	9.93	7.55	2.38	493.01	
4	93,569	1.91	11.43	9.52	483.49	
5	93,676	2.28	11.10	8.82	474.67	
6	93,767	1.43	10.83	9.40	465.27	
7	93,931	.53	9.72	9.19	456.08	
8	94,025	.82	11.38	10.56	445.52	Cross a ravine 15 ft. deep.
9	94,223	1.35	12.24	10.89	434.63	
340	94,417	1.41	10.78	9.37	425.26	
1	94,484	.34	10.55	10.21	415.05	
2	94,508	.59	11.00	10.41	404.64	
3	94,768	2.95	10.34	7.39	397.25	
4	94,932	2.16	5.54	3.38	393.87	
5	95,140	4.02	10.47	6.45	387.42	
6	95,446	1.25	9.60	8.35	379.07	
7	95,603	1.21	11.85	10.64	368.43	
8	95,770	.84	10.70	9.86	358.57	
9	95,953	1.12	11.22	10.10	348.47	
350	96,063	.80	10.91	10.11	338.36	
1	96,223	.74	11.39	10.65	327.71	
2	96,659	.50	4.97	4.47	323.24	
3	96,999	5.78	6.30	.52	322.72	
4	97,183	1.64	4.46	2.82	319.90	At 100 to 183 small brook west.
5	97,592	11.09	.48	10.61	330.51	
6	98,077	4.03	7.19	3.16	327.35	
7	98,479	3.41	1.97	1.44	326.79	
8	99,001	5.53	2.74	2.79	331.58	
9	99,605	10.41	.82	9.59	341.17	
360	99,947	10.36	1.08	9.28	350.45	At 400 small brook west.
1	100,183	10.14	1.82	8.32	358.77	
2	100,386	10.38	1.05	9.33	368.10	
3	100,702	10.67	2.10	8.57	376.67	
4	100,998	9.82	2.84	6.98	383.65	
5	101,310	11.31	.94	10.37	394.02	
6	101,516	10.04	.82	9.22	403.24	
7	101,638	10.48	2.17	8.31	411.55	
8	101,953	10.28	1.63	8.65	420.20	
9	102,164	5.62	2.66	2.96	423.16	Bench mark, No. 11. September 5.
370	102,469	6.06	2.83	3.23	426.39	
1	102,969	7.67	1.27	6.40	432.79	
2	103,331	8.90	1.19	7.71	440.50	
3	103,832	9.84	1.04	8.80	449.30	
4	104,357	6.10	5.14	.96	450.26	
5	104,647	3.32	8.76	5.44	444.82	
6	105,445	3.95	6.35	2.40	442.42	
7	105,468	3.47	3.61	.14	442.28	
8	105,702	2.47	10.51	8.04	434.24	
9	105,961	2.95	8.20	5.25	428.99	
380	106,198	1.35	11.23	9.88	419.11	
1	106,398	2.15	10.92	8.77	410.34	
2	106,716	6.45	2.95	3.50	413.84	
3	107,330	3.57	2.50	1.07	414.91	
4	107,920	4.90	4.63	.27	415.18	
5	108,248	2.60	3.52	.92	414.26	
6	108,546	6.13	.96	5.17	419.43	Bench mark, No. 12.
7	108,744	8.71	1.69	7.02	426.45	
8	108,915	12.68	.94	11.74	438.19	
9	109,032	11.41	.75	10.66	448.85	
390	109,211	4.21	1.51	2.70	451.55	
	109,211				451.55	Carried over.

No. of Station.
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Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	109,211				451.55	Brought up.
391	109,565	10.27	1.02	9.25	460.80	
2	109,881	7.21	.80	6.41	467.21	
3	110,000	12.86	.08	12.78	479.99	
4	110,170	13.95	.46	13.49	493.48	
5	110,413	10.57	.82	9.75	503.23	Burnt land begins.
6	110,900	9.29	1.86	7.43	510.66	
7	111,170	5.37	9.20	3.83	506.83	
8	111,288	2.94	10.73	7.79	499.04	
9	111,414	.65	11.14	10.49	488.55	
400	111,474	.71	10.49	9.78	478.77	
1	111,530	.18	11.50	11.32	467.45	
2	111,585	.30	10.34	10.04	457.41	
3	111,775	.00	11.11	11.11	446.30	
4	111,839	.17	10.82	10.65	435.65	
5	111,953	.35	11.15	10.80	424.85	
6	112,028	.48	11.09	10.61	414.24	
7	112,139	.00	11.06	11.06	403.18	
8	112,216	.65	11.37	10.72	392.46	
9	112,286	.00	11.32	11.32	381.14	
410	112,382	.08	10.86	10.78	370.36	
1	112,475	.14	11.26	11.12	359.24	
2	112,536	.62	11.20	10.58	348.66	
3	112,599	.00	11.58	11.58	337.08	
4	112,650	.82	11.25	10.43	326.65	
5	112,708	.00	10.98	10.98	315.67	
6	112,778	.69	11.19	10.50	305.17	
7	112,824	.48	10.81	10.33	294.84	
8	112,874	.11	10.67	10.56	284.28	
9	112,927	.45	11.80	11.35	272.93	
420	112,982	.15	11.30	11.15	261.78	
1	113,058	.30	11.08	10.78	251.00	
2	113,110	.48	10.82	10.34	240.66	
3	113,180	.02	11.46	11.44	229.22	
4	113,225	.84	11.20	10.36	218.86	
5	113,280	.24	11.13	10.89	207.97	
6	113,384	1.07	11.24	10.17	197.80	
7	113,612	.72	9.61	8.89	188.91	
8	113,755	1.95	9.40	7.45	181.46	
9	113,928	.88	6.66	5.78	175.68	
430	114,544	3.09	6.78	3.69	171.99	
1	115,038	3.63	5.49	1.86	170.13	
2	115,732	5.48	3.56	1.92	172.05	At 100 ft. crosses small
3	116,467	3.16	7.34	4.18	167.87	branch of Wagan rng.W.
4	117,021	3.92	1.96	1.96	169.83	At 540 crosses Wagan
5	117,632	2.97	2.87	.10	169.93	running E. water 3½ ft.
6	118,366	2.55	2.84	.29	169.64	lower than 554.
7	119,191	5.22	10.86	5.64	164.00	
8	119,821	6.13	3.94	2.19	166.19	
9	120,097	2.25	9.84	7.59	158.60	
440	120,486	3.81	6.17	2.36	156.24	
1	120,858	5.66	5.14	.52	156.76	
2	121,108	7.66	1.43	6.23	162.99	
3	121,497	11.62	2.54	9.08	172.07	At 50ft. main Wagan rng.
4	121,837	7.75	.67	7.08	179.15	E., water 9.92 ft. lower
5	121,951	8.22	1.54	6.68	185.83	than station 442.
6	122,043	10.04	1.01	9.03	194.86	Bench mark, No. 13.
7	122,171	9.72	.65	9.07	203.93	September 6.
8	122,287	10.73	.88	9.85	213.78	
9	122,427	9.60	.16	9.44	223.22	
450	122,620	10.45	.69	9.76	232.98	
1	122,788	11.69	.64	11.05	244.03	
2	123,128	5.62	11.04	5.42	238.61	
3	123,350	1.04	10.84	9.80	228.81	
4	123,530	1.30	11.39	10.09	218.72	
5	123,648	.93	8.36	7.43	211.29	
6	124,161	4.25	8.02	3.77	207.52	
	124,161				207.52	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	124,161				207.52	Brought up.
457	124,543	4.49	9.48	4.99	202.53	
8	124,983	1.14	10.92	9.78	192.75	
9	125,406	3.32	7.17	3.85	188.90	
460	125,754	1.33	.22	1.11	190.01	
1	126,016	2.28	.29	1.99	192.00	
2	126,643	8.73	11.34	2.61	189.39	
3	126,993	.41	11.49	11.08	178.31	
4	127,063	.41	11.31	10.90	167.41	
5	127,100	.89	10.88	9.99	157.42	
6	127,227	.68	11.57	10.89	146.53	
7	127,709	1.42	4.57	3.14	143.38	
8	128,139	3.95	4.98	1.03	142.35	
9	128,189	11.82	16.70	4.88	137.47	
	128,189				137.47	Level of water in Restigouche, river 50ft. wide. Water at Grand River, 163.24 137.47 ft. 25.77 diffce. of level. 24m. 1,469 ft. from St. John's 8m. 3,242ft. from Grand R. Bench mark, No. 14. September 7.
470	128,349	16.70	2.14	14.56	152.03	
1	129,012	5.69	2.46	3.23	155.26	
2	129,464	11.50	.59	10.91	166.17	
3	129,697	7.48	1.41	6.07	172.24	
4	129,925	7.74	1.47	6.27	178.51	
5	130,088	10.18	2.40	7.78	186.29	
6	130,238	10.24	.90	9.34	195.63	
7	130,388	8.42	.87	7.55	203.18	
8	130,555	10.91	1.48	9.43	212.61	
9	130,759	8.36	2.36	6.00	218.61	
480	130,971	8.61	.97	7.64	226.35	
1	131,158	9.86	.73	9.13	235.38	
2	131,364	13.60	.60	13.00	248.38	
3	131,814	8.86	1.98	6.88	255.26	
4	132,214	10.65	1.43	9.22	264.48	
5	132,464	4.95	3.05	1.90	266.38	
6	132,664	9.84	1.64	8.20	274.58	
7	132,831	11.87	.06	11.81	286.39	
8	133,071	6.61	.49	6.12	292.51	
9	133,221	11.98	1.76	10.22	302.73	
490	133,394	12.88	.50	12.38	315.11	
1	133,564	11.44	2.04	9.40	324.51	
2	133,726	11.35	.44	10.91	335.42	
3	133,886	13.81	.90	12.91	348.33	
4	134,017	13.00	.74	12.26	360.59	
5	134,146	10.62	1.36	9.26	369.85	
6	134,284	11.45	.37	11.08	380.93	
7	134,544	11.29	.40	10.89	391.82	
8	134,663	13.05	.47	12.58	404.40	
9	134,850	9.16	.53	8.63	413.03	
500	134,909	12.35	.70	11.65	424.68	
1	135,017	14.25	.72	13.53	438.21	
2	135,107	12.30	.45	11.85	450.06	
3	135,287	13.11	.11	13.00	463.06	
4	135,387	13.80	.20	13.60	476.66	
5	135,487	10.33	1.03	9.30	485.96	
6	135,651	12.60	.80	11.80	497.76	
7	135,955	14.25	.18	14.07	511.83	
8	136,255	7.68	1.31	6.37	518.20	
9	136,598	7.80	2.98	4.82	523.02	
510	136,768	10.16	1.30	8.86	531.88	
1	137,026	11.70	2.36	9.34	541.22	
2	137,276	9.64	1.21	8.43	549.65	
3	137,424	10.83	1.08	9.75	559.40	
4	137,636	12.74	1.08	11.66	571.06	
5	137,836	12.56	.77	11.79	582.85	
6	138,086	7.40	2.75	4.65	587.50	Bench mark, No. 15. September 8.
7	138,586	8.66	5.92	2.74	590.24	
8	139,042	5.75	2.50	3.25	593.49	
9	139,372	5.10	6.12	1.02	592.47	
	139,372				592.47	Carried over.

No. of Station.
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Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	139,372				592.47	Brought up.
520	139,600	10.59	1.11	9.48	601.95	
1	139,800	13.06	2.20	10.86	612.81	
2	139,950	10.95	1.59	9.36	622.17	
3	140,250	8.87	5.91	2.96	625.13	
4	140,550	2.83	9.29	6.46	618.67	
5	140,865	2.52	8.84	6.32	612.35	
6	141,065	2.82	11.92	9.10	603.25	
7	141,615	4.99	11.30	6.31	596.94	
8	141,865	1.57	13.36	11.79	585.15	
9	142,165	1.49	12.59	11.10	574.05	Bench mark, No. 16. September 10.
530	142,465	.65	11.90	11.25	562.80	
1	142,665	2.25	9.19	6.94	555.86	
2	142,815	1.23	9.14	7.91	547.95	
3	143,115	5.04	1.93	3.11	551.06	
4	143,352	6.65	3.18	3.47	554.53	
5	143,588	10.23	1.07	9.16	563.69	
6	143,977	6.91	.81	6.10	569.79	
7	144,377	5.84	1.08	4.76	574.55	
8	144,627	7.64	2.27	5.37	579.92	
9	144,877	7.27	1.13	6.14	586.06	
540	145,177	8.07	2.80	5.27	591.33	
1	145,477	6.31	3.22	3.09	594.42	
2	145,760	8.68	1.88	6.80	601.22	
3	145,960	8.21	4.50	3.71	604.93	
4	146,360	4.50	8.50	4.00	600.93	
5	146,710	3.41	6.65	3.24	597.69	
6	147,310	9.23	2.05	7.18	604.87	
7	147,710	4.67	3.18	1.49	606.36	
8	148,154	5.64	7.68	2.04	604.32	
9	148,327	1.03	10.84	9.81	594.51	
550	148,613	2.41	6.60	4.19	590.32	
1	148,852	1.28	11.23	9.95	580.37	
2	149,199	1.04	8.61	7.57	572.80	
3	149,749	.69	9.46	8.77	564.03	
4	150,119	2.65	8.25	5.60	558.43	
5	150,269	1.29	11.80	10.51	547.92	
6	150,506	1.37	10.85	9.48	538.44	
7	150,626	.59	12.06	11.47	526.97	
8	150,726	.00	14.23	14.23	512.74	
9	150,798	1.02	11.66	10.64	502.70	
560	150,863	.64	10.12	9.48	493.22	
1	150,983	.16	11.00	10.84	482.38	
2	151,063	.00	10.61	10.61	471.77	
3	151,168	1.54	10.20	8.66	463.11	
4	151,474	3.34	8.62	5.28	457.83	
5	151,674	2.54	6.64	4.10	453.73	
6	151,974	3.88	9.16	5.28	448.45	
7	152,174	1.49	8.29	6.80	441.65	
8	152,424	2.37	9.43	7.06	434.59	
9	152,524	1.55	10.74	9.19	425.40	
570	152,774	3.61	7.55	3.94	421.46	
1	153,074	1.04	5.27	4.23	417.23	
2	153,374	5.99	2.35	3.64	420.87	
3	153,636	5.79	1.77	4.02	424.89	
4	153,836	4.91	3.96	.95	425.84	
5	154,136	7.38	2.93	4.45	430.29	
6	154,234	6.71	2.02	4.69	434.98	
7	154,317	9.79	.42	9.37	444.35	
8	154,443	10.55	.49	10.06	454.41	
9	154,607	7.62	2.02	5.60	460.01	
580	154,672	10.92	1.05	9.87	469.88	
1	154,812	8.60	.77	7.83	477.71	
2	154,974	10.22	.80	9.42	487.13	
3	155,061	9.45	.73	8.72	495.85	
4	155,171	11.35	1.46	9.89	505.74	
5	155,258	11.12	1.17	9.95	515.69	Carried over.
	155,258				515.69	

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	155,258				515.69	Brought up.
586	155,336	11.11	1.28	9.83	525.52	
7	155,440	10.51	.07	10.44	535.96	
8	155,516	9.27	.25	9.02	544.98	
9	155,566	8.61	.12	8.49	553.47	Bench mark, No. 17.
590	155,646	10.00	1.44	8.56	562.03	September 14.
1	155,701	11.41	.97	10.44	572.47	
2	155,784	10.38	.03	10.35	582.82	
3	155,878	10.30	.43	9.87	592.69	
4	155,960	11.55	.00	11.55	604.24	
5	156,103	10.99	.29	10.70	614.94	
6	156,433	6.69	9.60	2.91	612.03	At 175 ft. (170th M.T.)
7	156,589	2.90	10.40	7.50	604.53	
8	156,958	11.31	2.00	9.31	613.84	
9	157,430	9.60	1.89	7.71	621.55	
600	157,544	10.07	.62	9.45	631.00	
1	157,737	11.91	.29	11.62	642.62	
2	157,866	10.54	.28	10.26	652.88	
3	158,034	10.45	1.53	8.92	661.80	
4	158,483	10.67	9.56	1.11	662.91	
5	158,578	1.79	10.62	8.83	654.08	
6	158,758	1.21	11.05	9.84	644.24	
7	159,066	1.57	11.14	9.57	634.67	
8	159,308	.99	3.15	2.16	632.51	
9	159,572	10.79	1.10	9.69	642.20	
610	159,802	11.42	.09	11.33	653.53	
1	160,002	7.31	.79	6.52	660.05	
2	160,184	11.54	.85	10.69	670.74	
3	160,408	9.01	.00	9.01	679.75	
4	160,534	14.01	.53	13.48	693.23	
5	160,801	10.35	.32	10.03	703.26	
6	161,116	5.85	9.57	3.72	699.54	
7	161,421	2.24	9.86	7.62	691.92	
8	161,738	2.60	11.14	8.54	683.38	
9	161,904	1.38	10.58	9.20	674.18	
620	162,007	.02	11.41	11.39	662.79	
1	162,249	.22	8.66	8.44	654.35	
2	162,711	1.71	6.33	4.62	649.73	
3	163,126	8.73	1.67	7.06	656.79	
4	163,366	8.88	1.34	7.54	664.33	
5	163,542	10.39	.06	10.33	674.66	
6	163,684	10.19	1.76	8.43	683.09	
7	163,854	10.83	1.03	9.80	692.89	
8	163,993	9.52	1.42	8.10	700.99	
9	164,141	11.65	1.49	10.16	711.15	
630	164,403	9.89	1.11	8.78	719.93	
1	164,529	11.45	.58	10.87	730.80	
2	164,686	9.41	2.02	7.39	738.19	
3	165,231	8.54	9.07	.53	737.66	
4	165,416	4.51	9.89	5.38	732.28	
5	165,506	.73	11.14	10.41	721.87	
6	165,818	2.70	10.03	7.33	714.54	
7	165,937	2.37	11.09	8.72	705.82	
8	166,061	.92	9.16	8.24	697.58	
9	166,121	9.16	.00	9.16	706.74	
640	166,228	10.39	1.39	9.00	715.74	
1	166,307	11.85	.70	11.15	726.89	
2	166,386	10.89	.27	10.62	737.51	
3	166,468	11.13	1.22	9.91	747.42	
4	166,573	12.21	.49	11.72	759.14	
5	166,676	11.00	.74	10.26	769.40	
6	166,765	11.13	.94	10.19	779.59	
7	166,861	11.80	.50	11.30	790.89	
8	166,991	14.52	.77	13.75	804.64	
9	167,406	8.60	5.54	3.06	807.70	
650	167,611	2.33	10.15	7.82	799.88	Bench mark, No. 18.
1	167,756	.06	10.46	10.40	789.48	September 15.
	167,756				789.48	Carried over.

No. of Station.	
652	1
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660	9
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670	19
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680	29
1	30
2	31
3	32
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6	35
7	36
8	37
9	38
690	39
1	40
2	41
3	42
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5	44
6	45
7	46
8	47
9	48
700	49
1	50
2	51
3	52
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5	54
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710	59
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Levelling Register.—*Continued.*

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	167,756				789.48	Brought up.
652	167,861	1.81	11.02	9.21	780.27	
3	167,965	1.02	10.69	9.67	770.60	
4	168,065	.42	10.42	10.00	760.60	
5	168,196	.12	10.83	10.71	749.89	
6	168,287	.70	11.24	10.54	739.35	
7	168,373	.90	10.72	9.82	729.53	
8	168,526	.40	1.62	1.22	728.31	
9	168,673	9.98	1.44	8.54	736.85	
660	168,770	11.60	0.70	10.90	747.75	
1	168,868	11.09	0.52	10.57	755.32	
2	169,011	11.83	1.70	10.13	768.45	
3	169,111	11.18	2.04	9.14	777.59	
4	169,473	11.32	1.71	9.61	787.20	
5	169,818	3.81	7.18	3.37	783.83	
6	170,076	4.22	10.13	5.91	777.92	
7	170,261	2.35	10.94	8.59	769.33	
8	170,455	1.89	10.58	8.69	760.64	
9	170,500	.42	11.44	11.02	749.62	
670	170,821	.27	11.11	10.84	738.78	
1	171,311	2.46	8.55	6.09	732.69	
2	171,831	5.47	8.34	2.87	729.82	
3	171,979	2.45	10.90	8.45	721.37	
4	172,161	1.60	10.75	9.15	712.22	
5	172,335	.87	11.39	11.02	701.20	
6	172,467	.57	10.75	10.18	691.02	
7	172,551	.67	11.02	10.35	680.67	
8	172,673	.32	11.24	10.92	669.75	
9	172,852	.68	11.04	10.36	659.39	
680	172,991	1.38	11.25	9.87	649.52	
1	173,121	.37	11.00	10.63	638.89	
2	173,328	1.39	10.70	9.31	629.58	
3	173,586	1.62	11.20	9.58	620.00	
4	173,766	.19	10.91	10.72	609.28	
5	173,961	.38	11.43	11.05	598.23	
6	174,129	2.34	11.04	8.70	589.53	
7	174,211	.57	11.39	10.82	578.71	
8	174,311	.24	14.00	13.76	564.95	Brook running west.
9	174,461	14.00	10.80	3.20	568.15	
690	174,736	7.30	9.02	1.72	566.43	
1	174,836	.31	10.66	10.35	556.08	
2	174,891	.57	10.73	10.16	545.92	
3	174,941	.52	11.15	10.63	535.29	
4	174,981	.41	10.58	10.17	525.12	
5	175,031	.66	11.17	10.51	514.61	
6	175,081	.19	11.20	11.01	503.60	
7	175,205	.26	7.42	7.16	496.44	Surface of water in brook.
8	175,461	6.29	.95	5.34	501.78	
9	175,561	10.11	.00	10.11	511.89	
700	175,761	10.04	.17	9.87	521.76	
1	175,826	10.10	.24	9.86	531.62	
2	175,917	10.65	.55	10.10	541.72	
3	176,001	10.46	.00	10.46	552.18	
4	176,161	11.56	1.24	10.32	562.50	
5	176,486	10.23	.52	9.71	572.21	
6	176,973	8.97	9.60	.63	571.58	
7	177,179	2.08	9.28	7.20	564.38	
8	177,349	2.37	10.30	7.93	556.45	
9	177,451	.45	11.06	10.61	545.84	
710	177,511	.00	11.31	11.31	534.53	
1	177,641	.54	8.13	7.59	526.94	Bench mark, No. 19.
2	177,737	8.05	.21	7.84	534.78	September 16.
3	177,824	10.93	.13	10.80	545.58	
4	177,841	12.30	.65	11.65	557.23	
5	177,888	10.65	.47	10.18	567.41	
6	177,935	10.91	.33	10.58	577.99	
7	178,006	11.20	1.44	9.76	587.75	
	178,006				587.75	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	178,006				587.75	Brought up.
718	178,053	10.68	.61	10.07	597.82	
9	178,101	9.28	.79	8.44	606.26	
720	178,199	11.02	.80	10.13	616.39	
1	178,301	11.10	1.54	9.56	625.95	
2	178,411	9.65	.54	9.11	635.06	
3	178,501	11.17	.22	10.95	646.01	
4	178,549	9.31	.14	9.17	655.18	
5	178,596	12.53	.25	12.28	667.46	
6	178,679	11.48	.25	11.23	678.69	
7	178,748	11.08	.15	10.93	689.63	
8	178,818	11.64	.20	11.44	701.06	
9	178,891	10.23	.02	10.21	711.27	
730	178,977	10.41	.90	9.51	720.78	
1	179,076	11.54	.36	11.18	731.96	
2	179,191	10.20	.48	9.72	741.68	
3	179,373	13.02	.95	12.07	753.75	
4	179,578	14.48	1.30	13.18	766.93	
5	179,961	5.60	6.15	.55	766.38	
6	180,111	.91	10.52	9.61	756.77	
7	180,261	.75	10.89	10.14	746.63	
8	180,455	.30	10.86	10.56	736.07	
9	180,796	1.08	5.25	4.17	731.90	
740	180,991	10.85	.54	9.91	741.81	
1	181,386	13.37	1.21	12.16	753.97	
2	181,613	3.54	8.69	5.15	748.82	
3	182,024	1.26	10.97	9.71	739.11	
4	182,111	.51	11.15	10.64	728.47	
5	182,231	.76	11.14	10.38	718.09	
6	182,329	.16	11.04	10.88	707.21	
7	182,411	.00	10.80	10.80	696.41	
8	182,514	.10	11.19	11.09	685.32	
9	182,601	.09	11.19	11.10	674.22	
750	182,679	.16	10.64	10.48	663.74	
1	182,761	.99	11.32	10.33	653.41	
2	182,873	1.79	11.24	9.45	643.96	
3	182,961	.70	9.10	8.40	635.56	
4	183,145	7.09	.00	7.09	642.65	
5	183,317	11.86	1.85	10.01	652.66	
6	183,529	10.64	.35	10.29	662.95	
7	183,716	12.33	.78	11.55	674.50	
8	184,261	7.53	10.18	2.65	671.85	
9	184,521	3.65	10.30	6.65	665.20	
760	184,721	1.21	11.32	10.11	655.09	
1	184,873	1.06	10.72	9.66	645.43	
2	185,021	1.88	10.70	8.82	636.61	
3	185,145	.41	10.94	10.53	626.08	
4	185,221	.64	10.44	9.80	616.28	
5	185,396	4.79	1.93	2.86	619.14	
6	185,565	10.47	1.51	8.96	628.10	
7	185,761	13.60	.99	12.61	640.71	
8	185,986	12.82	1.23	11.59	652.30	
9	186,296	10.44	1.77	8.67	660.97	
770	186,661	7.98	1.82	6.16	667.13	
1	186,961	4.53	4.15	.38	667.51	
2	187,073	1.93	10.11	8.18	659.33	
3	187,381	1.05	10.88	9.83	649.50	
4	187,521	1.20	12.70	11.50	638.00	
5	187,631	1.00	10.89	9.89	628.11	
6	187,731	1.28	10.74	9.46	618.65	
7	187,821	1.15	10.44	9.29	609.36	
8	187,915	.15	10.84	10.69	598.67	
9	187,971	.46	10.90	10.44	588.23	
780	188,046	.37	13.80	13.13	575.10	
1	188,121	.31	10.74	10.43	564.67	
2	188,206	.96	10.87	9.91	554.76	
3	188,281	.19	10.57	10.38	544.38	
	188,281				544.38	Carried over.

No. of Station.
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Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	188,361				544.38	Brought up.
784	188,396	.29	11.18	10.89	538.49	
5	188,461	1.07	10.38	9.31	524.18	
6	188,531	1.69	10.96	9.27	514.91	
7	188,583	1.24	10.72	9.48	505.43	
8	188,686	.60	13.94	13.14	492.29	
9	188,749	.75	15.97	15.22	477.07	
790	188,801	.44	14.49	14.05	463.02	
1	188,853	.16	15.23	15.07	447.95	Bench mark, No. 20.
2	188,886	.91	15.61	14.70	433.25	September 17.
3	188,911	.69	15.54	14.82	418.33	
4	188,951	.46	15.06	14.58	403.75	
5	188,983	.46	15.51	15.05	388.70	
6	189,006	2.07	15.43	13.36	375.34	
7	189,021	3.45	15.75	12.30	363.04	
8	189,036	2.55	15.97	13.42	349.62	
9	189,051	3.54	13.55	10.01	339.61	Surface of water in brook.
800	189,096	13.55	4.96	8.59	346.20	
1	189,111	9.82	.16	9.66	337.66	
2	189,146	12.04	.05	11.99	325.85	
3	189,189	12.37	.33	12.04	313.89	
4	189,461	13.59	1.71	11.88	299.77	
5	189,581	11.85	.23	11.62	288.39	
6	189,653	16.23	.10	16.13	272.52	
7	189,741	14.34	.00	14.34	258.66	
8	189,818	14.43	.70	13.73	244.59	
9	189,973	16.82	.89	15.93	228.62	
810	190,087	11.95	.77	11.18	217.44	
1	190,211	13.55	1.08	12.47	204.97	
2	190,361	12.01	.33	11.68	193.29	
3	190,513	10.64	.57	10.07	182.61	
4	190,878	10.57	9.35	1.22	173.26	
5	191,161	.48	14.75	14.27	158.99	
6	191,361	8.28	.02	8.26	150.73	
7	191,521	12.49	.09	12.40	138.24	
8	191,684	11.35	.45	10.90	127.34	
9	191,811	11.40	.38	11.02	116.32	
820	191,929	13.98	.47	13.51	102.81	
1	192,047	14.06	.34	13.72	89.09	
2	192,176	15.50	1.11	14.39	74.70	
3	192,285	13.30	.45	12.82	61.88	
4	192,406	11.48	.28	11.20	50.68	
5	192,487	13.80	.11	13.69	37.00	
6	192,567	15.61	.68	14.93	22.07	
7	192,861	11.43	4.85	6.58	15.49	
8	193,077	.79	12.32	11.53	3.96	
9	193,183	.56	10.89	10.33	2.43	
830	193,311	.95	15.95	15.00	1.48	
1	193,387	1.23	17.91	16.68	0.25	
2	193,491	.11	16.15	16.04	0.11	
3	193,588	.08	16.12	16.04	0.08	
4	193,683	.52	16.33	15.81	0.57	
5	193,757	.67	15.81	15.14	0.63	
6	193,821	.08	16.33	16.25	0.08	
7	193,882	.19	16.09	15.90	0.19	
8	193,956	.24	14.01	13.77	0.24	
9	194,018	.58	15.65	15.07	0.58	
840	194,077	.66	16.60	15.94	0.66	
1	194,101	.41	15.67	15.26	0.41	
2	194,141	.00	16.36	16.36	0.00	
3	194,186	.35	15.58	15.23	0.35	
4	194,233	.39	16.92	16.53	0.39	
5	194,261	.92	16.86	15.94	0.92	
6	194,289	2.81	15.81	13.00	2.81	
7	194,311	.29	16.59	16.30	0.29	
8	194,336	.65	15.56	14.91	0.65	
9	194,370	.07	15.52	15.45	0.07	
	194,370				308.81	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height above River St. John.	Remarks.
	194,370				808.81	Brought up.
650	194,389	2.35	15.79	13.44	295.37	
1	194,416	2.93	16.61	13.68	281.69	
2	194,576	4.18	18.85	14.67	270.62	270.62 feet.
3	194,661	15.25	34.10	18.85	255.84	Surface of water in main
4	194,686	10.70	23.40	12.70	246.44	stream of Memptcook.
5	194,729	8.45	15.05	6.60	303.84	
6	194,761	10.31	12.12	1.81	314.03	September 18.
7	194,786	11.13	01.11	10.02	324.15	
8	194,829	12.03	10.11	11.93	337.08	
9	194,870	12.34	00.12	12.34	349.42	
860	194,911	12.85	26.12	13.27	362.01	
1	194,933	10.72	26.10	15.38	377.47	
2	194,969	12.25	24.12	11.87	384.46	
3	195,073	14.72	18.14	14.54	399.02	
4	195,261	12.16	4.00	8.16	407.18	
5	195,528	4.00	5.22	1.22	405.96	
6	195,621	2.61	11.71	9.10	396.86	
7	195,691	1.19	11.28	10.09	386.77	
8	195,769	.50	11.26	10.76	376.01	
9	195,969	.83	10.83	10.00	366.01	
870	196,196	5.59	12.12	5.47	371.48	
1	196,404	11.59	1.38	10.21	381.69	
2	196,528	9.03	.17	8.86	390.55	
3	196,666	17.52	.50	17.02	407.57	
4	196,786	15.99	.42	15.57	423.14	
5	196,967	14.76	.38	14.38	437.52	
6	197,200	11.24	.72	10.52	448.04	
7	197,521	14.05	.34	13.71	461.75	
8	197,681	3.96	11.33	7.37	453.78	
9	197,761	.78	10.49	9.71	444.87	
880	198,011	.53	11.00	10.47	433.60	
1	198,136	.72	10.72	10.00	423.60	
2	198,161	.46	10.91	10.45	413.15	
3	198,311	1.04	10.66	9.62	403.53	
4	198,381	.96	11.03	10.07	393.46	
5	198,441	.63	15.79	15.16	378.30	
6	198,501	.29	15.67	15.44	362.86	
7	198,561	.77	14.97	14.20	348.66	
8	198,611	.99	15.80	12.16	333.85	
9	198,751	.53	12.69	14.81	321.69	
890	198,921	8.62	.38	8.24	329.93	Brook running east, water
1	198,968	15.62	.21	15.41	345.24	2 feet lower.
2	199,021	14.95	.28	14.67	360.01	
3	199,131	16.78	.65	16.13	376.14	
4	199,301	15.61	.29	15.32	391.46	
5	199,361	12.53	.00	12.53	403.99	
6	199,491	11.09	.39	10.70	414.69	
7	199,661	14.80	.39	14.41	429.10	
8	199,776	14.55	.00	14.55	443.65	
9	199,991	16.18	1.23	14.95	458.60	
900	200,091	15.72	.00	15.72	474.32	
1	200,343	14.24	.74	13.50	487.82	
2	200,468	15.32	.58	14.74	502.56	
3	200,601	14.11	.00	14.11	516.67	
4	200,741	16.32	.08	16.24	532.91	
5	200,883	18.11	1.52	16.59	549.50	
6	201,097	10.92	.34	10.58	530.08	
7	201,311	11.19	.77	10.42	570.50	
8	201,479	10.92	.84	10.08	580.58	
9	201,641	7.80	10.73	2.93	583.51	
910	201,743	.69	15.02	14.34	597.85	
1	201,861	.36	8.20	7.84	605.69	
2	201,891	8.20	.07	8.13	613.82	
3	201,961	12.80	.11	12.69	626.51	
4	202,021	13.88	.58	13.30	640.59	
5	202,119	11.31	.04	11.27	600.86	
	202,119				600.86	Carried over.

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Levelling Register.—Continued.

No. of Station.	Distance in f. et from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	202,119				600.86	Brought up.
916	202,211	15.26	.94	14.92	615.78	
7	202,291	15.12	.29	14.83	630.61	
8	202,404	13.53	.23	13.80	643.91	
9	202,541	17.03	.76	16.27	660.18	
920	202,672	13.84	.51	13.33	673.61	
1	202,883	16.72	.34	16.38	689.89	
2	203,061	13.74	.51	13.23	703.13	
3	203,211	16.40	.15	16.25	719.37	Bench mark, No. 21. September 19.
4	203,401	15.93	.27	15.66	735.03	
5	203,711	19.41	.74	18.67	753.70	
6	204,004	15.71	.99	14.72	768.42	
7	204,206	14.46	.47	13.99	782.41	
8	204,411	14.26	.51	13.75	796.16	
9	205,186	13.37	9.12	4.35	800.41	
930	205,391	.63	.15	.48	800.89	
1	205,469	11.58	.02	11.56	812.45	
2	205,573	17.36	.51	16.85	829.30	
3	205,680	17.18	.47	16.71	846.01	
4	205,821	15.80	.32	15.47	861.58	
5	205,986	16.53	.46	16.07	877.65	
6	206,176	16.79	.41	16.38	894.03	
7	206,384	13.94	.21	13.73	907.76	
8	206,531	13.56	.17	13.39	921.15	
9	206,706	16.04	.49	15.55	936.70	
940	207,061	15.41	.65	14.76	951.46	
1	207,231	15.56	.44	15.12	966.58	
2	207,426	6.46	.62	5.84	972.42	
3	207,828	14.49	9.70	4.79	977.21	
4	207,961	.55	15.08	14.53	962.68	
5	208,021	.69	15.38	14.69	947.99	
6	208,111	.07	13.26	13.19	934.80	
7	208,161	.87	14.25	13.38	921.42	
8	208,231	.90	15.80	14.90	906.52	
9	208,301	.58	15.34	14.76	891.76	
950	208,361	1.10	15.86	14.76	877.00	
1	208,411	.44	15.34	14.90	862.10	
2	208,469	.00	14.67	14.67	847.43	
3	208,536	.11	17.20	17.09	830.34	
4	208,579	.05	15.67	15.62	814.72	
5	208,625	.29	16.51	16.22	798.50	
6	208,676	.60	15.56	14.96	783.54	
7	208,711	.16	15.36	15.20	768.34	
8	208,749	.06	16.37	16.31	752.03	
9	208,776	.80	15.73	14.93	737.10	
960	208,811	.17	16.49	16.32	720.78	
1	208,846	.52	16.00	15.48	705.30	
2	208,961	16.00	.54	15.46	720.76	Surface of water in brook running west.
3	209,061	16.66	.20	16.46	737.22	
4	209,181	12.25	.36	11.89	749.11	
5	209,786	18.10	.93	17.17	766.28	
6	210,144	6.33	.14	6.19	772.47	
7	210,561	8.38	1.14	7.24	779.71	
8	210,673	15.04	.04	15.00	794.71	
9	210,926	14.73	.00	14.73	809.44	
970	211,331	11.99	2.49	9.50	818.94	
1	211,661	4.38	7.09	2.71	816.23	
2	211,861	1.06	15.28	14.22	802.01	
3	212,011	1.66	14.53	12.87	789.14	
4	212,239	1.76	13.57	11.81	777.33	
5	212,381	1.73	10.29	8.56	768.77	
6	212,769	14.67	.11	14.56	753.33	
7	212,961	13.41	.22	13.19	736.52	
8	213,167	12.53	1.27	11.26	807.78	
9	213,371	12.10	.95	11.15	818.93	
980	213,576	14.67	1.50	13.17	832.10	
1	213,761	13.77	.92	12.84	844.94	
	213,761				844.94	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	213,761				844.94	Brought up.
982	213,967	13.47	2.92	10.55	855.49	
3	214,311	8.08	4.54	3.54	859.03	Bench mark, No. 22.
4	214,461	9.73	.58	9.15	868.18	September 20.
5	214,551	15.39	.04	15.35	883.53	
6	214,611	16.44	.14	16.30	899.83	
7	214,661	17.65	.14	17.51	917.34	
8	214,801	17.35	.47	16.88	934.22	
9	214,934	15.81	.00	15.81	949.53	
990	215,011	14.83	.23	14.60	964.13	
1	215,181	13.60	.23	13.37	977.50	
2	215,386	13.98	.91	13.07	990.57	
3	215,751	9.46	.09	9.37	999.94	
4	216,019	5.57	14.90	9.33	990.61	
5	216,191	.20	15.07	14.87	875.74	
6	216,481	1.13	13.89	12.76	962.98	
7	216,761	.77	15.58	14.81	948.17	
8	217,061	1.35	6.72	5.37	942.80	
9	217,211	11.50	.32	11.18	953.98	
1,000	217,331	14.57	.79	13.78	967.76	
1	217,451	16.13	.74	15.39	983.15	
2	217,611	12.55	.56	11.99	995.14	
3	217,711	12.78	.12	12.66	1,007.80	
4	217,791	14.74	.66	14.08	1,021.88	
5	217,886	18.10	.22	17.88	1,039.76	
6	217,979	15.87	.35	15.52	1,055.28	
7	218,111	15.21	.08	15.13	1,070.41	
8	218,183	14.73	.05	14.68	1,085.09	
9	218,294	13.61	.37	13.24	1,098.33	
1,010	218,561	13.47	4.00	9.47	1,107.80	
1	218,711	4.00	10.95	6.95	1,100.85	
2	218,813	.39	13.45	13.06	1,087.79	
3	218,891	.60	15.88	15.28	1,072.51	
4	218,961	.25	13.22	12.97	1,059.54	
5	219,026	.62	15.50	14.88	1,044.66	
6	219,101	.54	15.35	15.31	1,029.35	
7	219,161	.00	13.61	13.61	1,015.74	
8	219,224	.23	14.20	13.97	1,001.77	
9	219,279	.63	15.51	14.88	986.89	
1,020	219,361	.43	15.63	15.20	971.69	
1	219,411	1.39	15.88	14.49	957.20	
2	219,486	.74	14.66	13.92	943.28	
3	219,611	.22	14.81	14.59	928.69	
4	219,711	1.02	16.57	15.55	913.14	
5	219,804	.00	17.16	17.16	895.98	
6	219,891	.48	16.50	16.02	879.96	
7	219,976	.58	15.97	15.39	864.57	
8	220,091	.93	17.19	16.26	848.31	
9	220,311	1.78	14.62	12.84	835.47	
1,030	220,461	1.98	13.23	11.25	824.22	
1	220,561	1.46	13.91	12.45	811.77	
2	220,661	.43	14.82	14.39	797.38	
3	220,781	1.66	13.37	11.71	785.67	
4	220,961	1.09	11.45	10.36	775.31	
5	221,291	3.67	.49	3.18	778.49	
6	221,381	13.20	.24	12.96	791.45	
7	221,511	12.15	.36	11.79	803.24	
8	221,588	15.20	.42	14.78	818.02	
9	221,679	13.50	.25	13.25	831.27	
1,040	221,811	14.58	.63	13.95	845.22	
1	221,923	14.54	.53	14.01	859.23	
2	221,991	16.32	.43	15.89	875.12	
3	222,109	16.19	.47	15.72	890.84	
4	222,191	15.29	3.00	12.29	903.13	
5	222,284	3.00	16.02	13.02	890.11	
6	222,411	.99	16.41	15.42	874.69	
7	222,461	.64	15.49	14.85	859.84	
	222,461				859.84	Carried over.

No. of Station.
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Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	222,461				859.84	Brought up.
1,048	222,507	.46	15.82	15.36	844.48	
9	222,557	.00	16.39	16.39	828.09	
1,050	222,591	.00	16.58	16.58	811.51	
1	222,646	.48	16.35	15.87	795.64	
2	222,673	.22	16.11	15.88	779.76	
3	222,711	.53	15.82	15.29	764.47	
4	222,749	.21	17.07	16.86	747.61	
5	222,800	.48	16.00	15.52	732.09	
6	222,854	.74	16.11	15.37	716.72	
7	222,895	.44	16.57	16.13	700.59	
8	222,961	.31	16.16	15.85	684.74	
9	223,005	.58	16.66	16.08	668.66	
1,060	223,067	.08	16.70	16.62	652.04	
1	223,111	.41	16.18	15.77	626.27	
2	223,181	.00	16.30	16.30	619.97	
3	223,253	.74	15.48	14.74	605.23	
4	223,299	.63	15.05	14.42	590.81	
5	223,357	.20	16.03	15.83	574.98	
6	223,397	.09	15.71	15.62	559.36	
7	223,587	1.82	17.31	15.49	543.87	
8	223,673	.75	15.94	15.19	528.68	
9	223,722	1.02	15.90	14.88	513.80	
1,070	223,861	.45	16.28	15.83	497.97	Brook running east.
1	223,921	.11	16.55	16.44	481.53	
2	223,961	.39	15.79	15.40	466.13	
3	224,001	.00	16.14	16.14	449.99	
4	224,061	.10	12.00	11.90	438.09	
5	224.71	13.00	13.00	1.00	437.09	
6	224,371	2.37	9.74	7.37	429.72	
7	224,591	6.84	11.50	4.66	425.06	
8	224,701	11.50	.09	11.41	436.47	
9	224,757	17.10	.57	16.53	453.00	
1,080	224,851	14.01	.07	13.94	466.94	
1	224,898	14.70	.07	14.63	481.57	
2	224,941	14.98	.95	14.03	495.60	
3	225,011	16.50	.64	15.86	511.46	
4	225,111	16.87	.01	16.86	528.32	
5	225,186	15.87	1.15	14.72	543.04	
6	225,291	13.74	.19	13.55	556.59	
7	225,381	16.80	.05	16.75	573.34	
8	225,476	12.09	.42	11.67	585.01	
9	225,549	13.54	.12	13.42	598.43	
1,090	225,621	16.19	.54	15.65	615.08	
1	225,688	13.24	.02	13.22	627.30	
2	225,776	13.65	1.01	12.64	639.94	
3	225,883	16.45	.16	16.29	656.23	
4	225,961	15.25	.21	15.04	671.27	
5	226,011	12.76	.23	12.53	683.80	
6	226,072	14.54	.04	14.50	698.30	
7	226,144	16.11	.11	16.00	714.30	
8	226,181	16.50	.34	16.16	730.46	
9	226,276	15.35	.25	15.10	745.56	
1,100	226,373	13.77	.46	13.31	758.87	
1	226,473	15.20	.07	16.13	775.00	
2	226,561	13.12	.01	13.11	788.11	
3	226,652	15.38	.06	15.32	803.43	
4	226,708	16.22	.69	15.53	818.96	
5	226,767	16.39	.28	16.11	835.07	
6	226,811	16.18	.14	16.04	851.11	
7	226,880	17.19	.00	17.19	868.30	
8	226,943	17.36	.19	17.17	885.47	
9	226,991	16.95	.28	16.67	902.14	
1,110	227,061	17.09	.25	16.84	918.98	Carried over.
1	227,121	16.93	.03	16.90	935.88	
2	227,201	15.85	1.04	14.81	950.69	
3	227,291	9.38	4.00	5.58	956.27	
	227,291				956.27	

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	227,291				956.27	Brought up.
1,114	227,381	4.00	10.62	6.62	949.65	Bench mark, No. 24. September 22.
5	227,641	.63	3.17	2.54	947.11	
6	227,721	9.42	.38	9.04	956.15	
7	228,141	12.55	1.29	11.26	967.41	
8	228,286	16.20	.20	16.00	983.41	
9	228,661	15.70	4.00	11.70	995.11	
1,120	228,746	4.00	12.34	8.34	986.77	
1	228,801	1.26	15.66	14.40	972.37	
2	228,888	.86	16.20	15.34	957.03	
3	228,969	.95	16.49	15.54	941.49	
4	229,081	1.19	16.46	15.27	926.22	1,190
5	229,225	.94	15.59	14.65	911.57	
6	229,321	1.03	16.55	15.52	896.05	
7	229,411	.57	15.87	15.30	880.75	
8	229,591	1.36	15.27	13.91	866.84	
9	229,991	5.29	13.70	8.41	858.43	
1,130	230,191	.52	7.35	6.83	851.60	
1	230,421	3.67	15.58	11.91	839.69	
2	230,491	1.47	15.52	14.05	825.64	
3	230,581	.75	16.53	15.78	809.86	1,200
4	230,691	12.00	.48	11.52	821.38	
5	230,770	15.20	.04	15.16	836.54	
6	230,876	16.40	.14	16.26	852.80	
7	230,996	15.97	.57	15.40	868.20	
8	231,052	16.00	.20	15.80	884.00	
9	231,283	15.41	.61	14.80	898.80	
1,140	231,373	15.92	.42	15.50	914.30	
1	231,487	15.47	.23	15.24	929.54	
2	231,601	17.89	.83	17.06	946.60	1,210
3	231,779	14.20	.31	13.89	960.49	
4	232,061	6.31	14.12	7.81	952.68	
5	232,191	.85	16.00	15.15	937.53	
6	232,286	16.00	.22	15.78	953.31	
7	232,416	15.39	.01	15.38	968.69	
8	232,508	12.57	.09	12.48	981.17	
9	232,595	13.40	.28	13.12	994.29	
1,150	232,691	16.31	.43	15.88	1,010.17	
1	232,903	16.37	.55	15.82	1,025.99	1,220
2	233,286	8.78	.75	8.03	1,034.02	
3	233,395	15.84	.65	15.19	1,049.21	
4	233,498	15.29	.25	15.04	1,064.25	
5	233,587	13.72	.62	13.10	1,077.35	
6	233,691	15.43	.09	15.34	1,092.69	
7	233,811	15.48	.65	14.83	1,107.52	
8	233,951	14.48	.10	14.38	1,121.90	
9	234,021	14.89	.14	14.75	1,136.65	
1,160	234,111	15.08	.34	14.74	1,151.39	1,230
1	234,205	17.08	.10	16.98	1,168.37	
2	234,291	15.28	.37	14.91	1,183.28	
3	234,361	16.98	.16	16.82	1,200.10	
4	234,443	16.82	.03	16.79	1,216.89	
5	234,528	15.17	.15	15.02	1,231.91	
6	234,609	15.89	.34	15.55	1,247.46	
7	234,711	17.68	.25	17.43	1,264.89	
8	234,879	16.61	.28	16.33	1,281.22	
9	235,141	10.58	4.00	6.58	1,287.80	1,240
1,170	235,341	4.00	15.21	11.21	1,276.59	
1	235,451	1.33	16.00	14.67	1,261.92	
2	235,561	.97	16.98	16.01	1,245.91	
3	235,651	1.15	15.92	14.77	1,231.14	
4	235,711	.46	16.18	15.72	1,215.42	
5	235,791	.44	17.97	17.53	1,197.89	
6	235,881	.73	17.17	16.44	1,181.45	
7	235,961	.80	16.28	15.48	1,165.97	
8	236,031	.53	17.33	16.80	1,149.17	
9	236,101	.85	16.98	16.13	1,133.04	Carried over.
	236,101				1,133.04	

No. of Station.
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Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	236,101				1,133.04	Brought up.
1,180	236,161	.75	16.93	16.18	1,116.86	
1	236,231	.00	16.50	16.50	1,100.36	
2	236,301	.44	15.32	14.88	1,085.48	
3	236,370	.34	17.03	16.69	1,068.79	
4	236,419	.69	16.75	16.06	1,052.73	
5	236,473	.59	16.84	16.25	1,036.48	
6	236,511	1.80	19.50	17.70	1,018.78	Small stream running east.
7	236,591	19.50	.37	19.13	1,037.98	
8	236,636	15.26	.69	14.57	1,052.48	
9	236,681	14.55	.63	13.92	1,066.40	
1,190	236,751	12.44	1.32	11.12	1,077.52	Bench mark, No. 25.
1	236,891	16.52	1.10	15.42	1,092.94	September 23.
2	236,982	15.49	.26	15.23	1,108.17	
3	237,061	15.08	.23	14.85	1,123.02	
4	237,141	15.30	.67	14.63	1,137.65	
5	237,227	15.78	.52	15.26	1,152.91	
6	237,311	15.96	.20	15.76	1,168.67	
7	237,484	15.40	.44	14.96	1,183.63	
8	237,748	5.52	15.27	9.75	1,173.88	
9	237,821	.38	17.28	16.90	1,156.98	
1,200	237,891	.28	16.02	15.74	1,141.24	
1	237,961	.64	15.73	15.09	1,126.15	
2	238,011	.87	16.40	15.53	1,110.62	
3	238,091	.46	15.86	15.40	1,095.22	
4	238,151	.71	14.84	14.13	1,081.09	
5	238,213	.15	15.56	15.41	1,065.68	
6	238,291	.38	16.23	15.95	1,049.73	
7	238,346	1.09	16.93	15.84	1,033.89	
8	238,404	.39	16.34	15.95	1,017.94	
9	238,461	.57	16.84	16.27	1,001.67	
1,210	238,561	2.07	20.00	17.93	983.74	
1	238,666	20.00	.47	19.53	1,003.27	
2	238,719	15.39	.35	15.04	1,018.31	
3	238,811	14.00	.68	13.32	1,031.63	
4	238,971	15.80	.37	15.53	1,047.16	
5	239,101	17.15	.36	16.89	1,064.05	
6	239,341	14.58	.81	13.77	1,077.82	
7	239,461	8.84	3.00	5.84	1,083.66	
8	239,696	3.00	13.87	10.87	1,072.79	
9	239,821	1.39	16.40	15.01	1,057.78	
1,220	239,945	.62	16.68	16.06	1,041.72	
1	240,011	1.23	16.91	15.68	1,026.04	
2	240,091	.50	16.29	15.79	1,010.25	
3	240,161	.36	16.10	15.74	994.51	
4	240,230	.36	16.67	16.31	978.20	Surface of brook E.
5	240,257	.00	11.66	11.66	966.54	
6	240,301	10.73	18.73	8.00	958.54	
7	240,417	18.73	.20	18.53	977.07	
8	240,491	13.83	.22	13.61	990.68	
9	240,561	15.65	.03	15.62	1,006.30	
1,230	240,611	15.25	.24	15.01	1,021.31	
1	240,701	14.26	.07	14.19	1,035.50	
2	240,783	14.64	.16	14.48	1,049.98	
3	240,836	14.14	.50	13.64	1,063.64	
4	240,886	13.55	.31	13.24	1,076.86	
5	240,956	16.95	.12	16.83	1,093.69	
6	241,017	14.14	.48	13.66	1,107.35	
7	241,071	13.07	.15	12.92	1,120.27	
8	241,133	12.04	.48	11.56	1,131.83	
9	241,205	14.24	.22	14.02	1,145.85	
1,240	241,311	14.11	.04	14.07	1,159.92	
1	241,461	14.24	.06	14.18	1,174.10	
2	241,876	16.73	.87	15.86	1,189.96	
3	242,146	10.19	4.00	6.19	1,196.15	
4	242,331	4.00	14.08	10.08	1,186.07	
5	242,431	.83	15.02	14.19	1,171.88	
	242,431				1,171.88	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	242,431				1,171.88	Brought up.
1,246	242,541	.44	17.65	17.21	1,154.67	
7	242,611	.92	16.28	15.36	1,139.31	
8	242,686	.63	16.51	15.88	1,123.43	
9	242,755	.36	17.06	16.71	1,106.72	
1,250	242,811	.28	16.62	16.34	1,090.38	
1	242,872	.32	16.50	16.18	1,074.20	
2	242,946	.95	16.18	15.23	1,058.97	
3	243,003	1.07	17.53	16.46	1,042.51	
4	243,141	.53	16.57	16.04	1,026.47	
5	243,181	1.02	16.48	15.46	1,011.01	
6	243,311	1.49	17.74	16.25	994.76	
7	243,383	1.20	16.05	14.85	979.91	
8	243,511	.12	15.03	14.91	965.00	
9	243,676	1.04	15.68	14.64	950.36	
1,260	243,773	1.03	15.07	14.04	936.32	
1	243,861	1.69	15.85	14.16	922.16	
2	243,903	.69	6.69	6.00	916.16	Bench mark, No. 26.
3	243,981	.31	17.85	17.54	898.62	September 24.
4	244,061	1.23	16.50	15.27	883.35	
5	244,141	.20	16.63	16.43	866.92	
6	244,211	.42	15.56	15.14	851.78	
7	244,368	.91	17.55	16.64	835.14	
8	244,452	1.06	16.49	15.43	819.71	
9	244,511	.81	16.82	16.01	803.70	
1,270	244,553	.19	16.85	16.66	787.04	
1	244,595	.37	16.63	16.26	770.78	
2	244,811	.20	30.80	30.60	740.18	
3	245,003	30.80	2.69	28.11	768.29	
4	245,031	16.77	.75	16.02	784.31	
5	245,094	13.50	.16	13.34	797.65	
6	245,193	14.65	.57	14.08	811.73	
7	245,315	13.04	1.08	11.96	823.69	
8	245,407	13.01	.22	12.79	836.48	
9	245,528	16.39	.95	15.44	851.92	
1,280	245,614	13.75	.10	13.65	865.57	
1	245,679	15.88	.60	14.98	880.55	
2	245,761	14.94	.49	14.45	895.00	
3	245,861	13.02	.23	12.79	907.79	
4	245,934	14.50	.16	14.34	922.13	
5	246,061	16.36	1.13	15.23	937.36	
6	246,155	14.67	.45	14.22	951.58	
7	246,294	14.37	.52	13.85	965.43	
8	246,411	13.93	.59	13.34	978.77	
9	246,583	16.03	.02	16.01	994.78	
1,290	246,688	16.02	.76	15.26	1,010.04	
1	246,780	13.48	.78	12.70	1,022.74	
2	246,918	16.67	.51	16.16	1,038.90	
3	247,010	15.10	.77	14.33	1,053.23	
4	247,132	15.66	.24	15.42	1,068.65	
5	247,295	15.30	1.16	14.14	1,082.79	
6	247,398	12.73	.35	12.38	1,095.17	
7	247,597	14.04	.22	13.82	1,108.99	
8	247,777	13.50	.78	12.72	1,121.71	
9	247,927	14.67	.43	14.24	1,135.95	
1,300	248,073	13.70	.62	13.08	1,149.03	
1	248,191	14.98	1.02	13.96	1,162.99	
2	248,317	14.99	1.14	13.85	1,176.84	
3	248,421	15.20	2.88	12.92	1,189.76	
4	248,525	13.10	.58	12.52	1,202.28	
5	248,649	16.11	1.13	14.98	1,217.26	
6	248,861	17.40	1.79	15.61	1,232.87	
7	249,075	16.96	.28	16.68	1,249.55	
8	249,261	15.80	.88	14.92	1,264.47	
9	249,424	14.88	.36	14.52	1,278.99	
1,310	249,561	10.61	1.11	9.50	1,288.49	
1	249,811	8.64	.66	7.98	1,296.47	
	249,811				1,296.47	Carried over.

No. of Station.
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Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	249,811				1,296.47	Brought up.
1,312	250,013	4.40	13.07	8.67	1,287.80	
3	250,170	.84	16.44	15.60	1,272.20	
4	250,399	1.84	16.37	14.53	1,257.67	
5	250,686	1.50	13.99	12.49	1,245.18	
6	250,957	1.89	9.38	7.49	1,287.69	
7	251,261	3.63	4.58	.35	1,236.74	
8	251,652	6.80	1.98	4.82	1,241.56	
9	251,896	11.00	.88	10.12	1,251.68	
1,320	252,089	12.36	1.44	10.92	1,262.60	
1	252,370	15.58	1.60	13.98	1,276.58	
2	252,718	7.57	14.16	6.59	1,269.99	
3	252,811	.26	16.63	16.37	1,253.62	
4	252,897	.45	16.95	16.50	1,237.12	
5	252,955	.40	16.92	16.52	1,220.60	
6	253,011	.48	16.85	16.37	1,204.23	Bench mark, No. 25. September 20.
7	253,061	.77	16.03	16.06	1,188.17	
8	253,118	.32	16.35	16.03	1,172.14	
9	253,169	1.10	17.28	16.18	1,155.96	
1,330	253,221	.80	16.35	15.55	1,140.41	
1	253,272	.43	16.61	16.18	1,124.23	
2	253,329	.79	17.27	16.48	1,107.75	
3	253,382	.15	17.03	16.88	1,090.87	
4	253,446	.39	16.88	16.49	1,074.38	
5	253,504	.67	17.31	16.64	1,057.74	
6	253,561	.21	16.62	16.41	1,041.33	
7	253,614	.17	16.88	16.71	1,024.62	
8	253,684	.49	17.29	16.80	1,007.82	
9	253,735	.64	16.08	15.44	992.38	Brought up.
1,340	253,799	.64	17.01	16.37	976.01	
1	253,853	.62	16.79	16.17	959.84	
2	253,896	.54	17.60	17.06	942.78	
3	254,068	.70	14.88	14.18	928.60	
4	254,176	1.23	16.65	15.42	913.18	
5	254,211	.15	17.47	17.32	895.86	
6	254,236	.10	16.35	16.25	879.61	
7	254,261	1.16	16.68	15.52	864.09	
8	254,341	4.80	35.80	31.00	833.09	
9	254,596	35.80	2.34	33.46	866.55	
1,350	254,671	13.88	5.36	8.52	875.07	
1	254,806	15.90	2.90	13.00	888.07	
2	254,908	11.42	1.21	10.21	898.28	Brought up.
3	254,961	12.31	.32	11.99	910.27	
4	255,046	13.52	.28	13.24	923.51	
5	255,167	14.80	1.27	13.53	937.04	
6	255,361	12.45	1.41	11.04	948.08	
7	255,561	7.84	.81	7.03	955.11	
8	255,873	3.00	13.27	10.27	944.84	
9	256,076	1.87	14.00	12.13	932.71	
1,360	256,181	.55	23.00	22.45	910.26	
1	256,273	23.00	.32	22.68	932.94	
2	256,361	14.30	1.90	12.40	945.34	
3	256,809	2.79	17.24	14.45	930.89	
4	256,942	1.42	16.87	15.45	915.44	
5	257,027	.17	16.80	16.63	898.81	Brought up.
6	257,094	.50	16.57	16.07	882.74	
7	257,161	.79	16.47	15.68	867.06	
8	257,239	.35	17.29	16.94	850.12	
9	257,280	.54	16.87	16.33	833.79	
1,370	257,343	.23	16.95	16.72	817.07	
1	257,379	.00	16.78	16.78	800.29	
2	257,424	.00	17.56	17.56	782.73	
3	257,461	.41	16.94	16.53	766.20	
4	257,521	.16	16.77	16.61	749.59	
5	257,561	.10	17.62	17.52	732.07	
6	257,611	.28	16.37	16.09	715.98	
7	257,719	.33	16.96	16.63	699.35	
	257,719				699.35	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back. Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	257,719				699.35	Brought up.
1378	257,776	.56	17.24	16.68	682.67	
9	257,821	.55	17.29	16.74	665.93	
1380	257,879	.20	16.49	16.29	649.64	
1	257,911	.81	16.73	15.92	632.72	
2	257,927	1.43	17.26	15.83	617.89	
3	257,957	.38	16.83	16.45	601.44	
4	258,015	.35	16.55	16.20	585.24	
5	258,096	.34	77.62	17.28	567.96	
6	258,121	.10	15.21	15.11	552.85	
7	258,161	9.69	13.19	3.50	549.35	Large brook running east.
8	258,476	13.19	.11	13.08	562.43	Level of water.
9	258,579	17.20	.18	17.02	579.45	
1,390	258,661	16.11	.66	15.45	594.90	
1	258,811	13.46	.19	13.27	608.17	
2	258,921	13.60	.76	12.84	621.01	
3	259,061	11.78	.54	11.24	632.25	
4	259,109	14.62	.80	13.82	646.07	
5	259,151	14.92	.69	14.23	660.30	
6	259,203	17.50	.71	16.79	677.09	
7	259,289	15.23	.59	14.64	691.73	
8	259,355	14.17	1.12	13.05	704.78	
9	259,471	13.63	.68	13.05	717.83	
1,400	259,593	14.40	.20	14.20	732.03	
1	259,695	14.56	.47	14.09	746.12	
2	259,871	11.97	1.50	10.47	756.59	
3	259,977	13.44	1.64	11.80	768.39	
4	260,071	14.25	.50	13.75	782.14	
5	260,231	16.76	.54	16.22	798.36	
6	260,531	13.71	4.00	9.71	808.07	
7	260,635	4.00	17.13	13.13	794.94	
8	260,771	.51	6.64	6.13	788.81	Bench mark, No. 28.
9	261,031	3.34	.66	2.68	791.49	September 26.
1,410	261,111	14.62	.42	14.20	805.69	
1	261,171	12.94	.44	12.50	818.19	
2	261,231	10.57	.11	10.46	828.65	
3	261,315	12.19	.56	11.63	840.28	
4	261,411	12.65	.14	12.51	852.79	
5	261,487	13.25	.14	13.11	865.90	
6	261,579	13.24	.11	13.13	879.03	
7	261,681	16.79	.00	16.79	895.82	
8	261,765	15.45	.47	14.98	910.80	
9	261,956	16.68	.00	16.68	927.48	
1,420	262,051	14.88	1.21	13.67	941.15	
1	262,171	16.67	.54	16.13	957.28	
2	262,256	15.39	.09	15.30	972.58	
3	262,341	12.80	.00	12.80	985.38	
4	262,441	13.73	.09	13.64	999.02	
5	262,491	12.81	.34	12.47	1,012.49	
6	262,565	14.33	.15	14.18	1,026.67	
7	262,621	14.87	.00	14.87	1,041.54	
8	262,686	13.09	.11	13.79	1,055.33	
9	262,721	12.47	.16	12.31	1,067.64	
1,430	262,771	14.07	.32	13.75	1,081.39	
1	262,826	16.43	.00	16.43	1,097.82	
2	262,876	15.87	.03	15.84	1,113.66	
3	262,951	16.98	.00	16.98	1,130.64	
4	263,006	14.24	.02	14.22	1,144.86	
5	263,047	15.90	1.26	14.64	1,159.50	
6	263,101	15.48	1.62	13.86	1,173.36	
7	263,171	14.49	.13	14.36	1,187.72	
8	263,211	11.84	1.35	10.49	1,198.21	
9	263,271	15.34	.01	15.33	1,213.54	
1,440	263,336	15.81	.00	15.81	1,229.35	
1	263,396	14.41	.52	13.89	1,243.24	
2	263,466	14.35	.32	14.03	1,257.27	
3	263,531	13.99	.00	13.99	1,271.26	
	263,531				1,271.26	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	263,531				1,271.26	Brought up.
1,444	263,621	13.11	.00	13.11	1,284.37	
5	263,706	16.59	.00	16.59	1,300.96	
6	263,898	4.00	10.30	6.30	1,294.66	
7	264,002	1.90	14.04	12.14	1,282.52	
8	264,061	1.73	10.32	8.59	1,273.93	
9	264,121	.59	16.58	15.99	1,257.94	Bench mark, No. 29.
1,450	264,181	.79	16.61	15.82	1,242.12	
1	264,234	.50	17.11	16.61	1,225.51	
2	264,270	.93	17.43	17.20	1,208.31	
3	264,328	.21	16.81	16.60	1,191.71	
4	264,371	.35	16.20	15.85	1,175.86	
5	264,448	.20	17.10	16.90	1,158.96	
6	264,487	.46	17.12	16.66	1,142.30	
7	264,528	.09	16.85	16.76	1,125.54	
8	264,571	.00	16.77	16.77	1,108.77	
9	264,621	.13	16.41	16.28	1,092.49	
1,460	264,659	.42	16.04	15.62	1,076.87	
1	264,708	.49	16.01	15.52	1,061.35	
2	264,746	.03	17.30	17.27	1,044.08	
3	264,781	.38	7.52	7.14	1,036.94	
4	265,921	.00	750.24	750.24	286.70	
5	266,921	750.24	.00	750.24	1,036.94	Brook 750.24 feet lower than this station. 1,140 feet distance, sighted across the valley.
6	267,271	7.86	3.98	3.88	1,040.82	
7	267,571	12.25	2.29	9.96	1,050.78	
8	267,866	4.19	2.17	2.02	1,052.80	
9	268,181	7.85	8.91	1.06	1,051.74	
1,470	268,431	2.65	14.22	11.57	1,040.17	
1	268,581	3.36	11.31	7.95	1,032.22	
2	268,841	5.67	.45	5.22	1,037.44	
3	268,911	13.64	.89	12.75	1,050.19	
4	268,966	14.78	1.05	13.73	1,063.92	
5	269,086	16.32	.00	16.32	1,080.24	
6	269,141	12.69	1.94	10.75	1,090.99	
7	269,221	13.73	.00	13.73	1,104.72	
8	269,306	15.64	.51	15.13	1,119.85	
9	269,371	14.26	.73	13.53	1,133.38	
1,480	269,429	11.49	.55	10.94	1,144.32	
1	269,495	11.42	.71	10.71	1,155.03	
2	269,551	15.69	1.26	14.43	1,169.46	
3	269,671	11.60	1.09	10.51	1,179.97	
4	269,746	13.16	2.43	10.73	1,190.70	
5	269,821	13.30	.11	13.19	1,203.89	
6	269,939	16.28	.76	15.52	1,219.41	
7	270,242	14.60	2.08	12.52	1,231.93	
8	270,607	8.65	15.29	6.64	1,225.29	
9	270,702	.95	16.70	15.75	1,209.54	
1,490	270,772	1.06	15.42	14.36	1,195.18	
1	270,867	.92	15.90	14.98	1,180.20	
2	270,918	1.20	16.81	15.61	1,164.59	
3	270,980	1.07	15.83	14.76	1,149.83	
4	271,037	.65	16.84	16.19	1,133.64	
5	271,095	.41	16.97	16.56	1,117.08	
6	271,160	.29	16.79	16.50	1,100.58	
7	271,214	.79	16.59	16.20	1,084.38	
8	271,262	.57	17.00	16.43	1,067.95	
9	271,303	0.13	17.68	17.55	1,050.40	
1,500	271,347	1.00	24.00	21.00	1,029.40	
1	271,369	22.00	8.90	13.10	1,042.50	
2	271,506	1.95	12.20	10.25	1,032.25	
3	271,880	.79	16.06	15.27	1,016.98	
4	272,022	2.00	16.93	14.93	1,002.05	
5	272,072	.99	8.23	7.24	994.81	
6	275,122	.00	814.70	814.70	180.11	
7	277,322	814.70	.00	814.70	994.81	Brook 814.70 feet lower than this station. 3,050 feet distance, sighted across the valley.
8	277,422	15.89	.82	15.07	1,009.88	
9	277,476	13.84	1.59	12.25	1,022.13	
	277,476				1,022.13	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	277,476				1,022.13	Brought up.
1,510	277,518	13.15	.00	13.15	1,035.28	
1	277,597	13.52	.13	13.39	1,048.67	
2	277,652	12.80	1.49	11.31	1,069.98	
3	277,737	11.96	1.14	10.82	1,070.80	
4	277,902	11.12	2.11	9.01	1,079.81	
5	278,072	7.79	4.00	3.79	1,083.60	
6	278,252	4.00	14.03	10.03	1,073.57	
7	278,272	2.43	14.26	11.83	1,061.74	
8	278,362	.41	12.24	11.83	1,049.91	
9	278,412	.46	14.08	13.62	1,036.29	
1,520	278,442	.18	15.91	15.73	1,020.56	
1	278,482	.86	15.25	14.39	1,006.17	
2	278,517	.34	15.75	15.41	990.76	
3	278,537	.77	16.18	15.41	975.35	
4	278,572	2.92	16.81	13.89	961.96	
5	278,592	.71	15.38	14.67	947.29	
6	278,604	2.68	10.86	8.18	939.11	
7	278,624	.47	15.79	15.32	923.79	
8	278,647	1.53	15.71	14.18	909.61	
9	278,682	2.75	16.49	13.74	895.87	
1,530	278,716	.03	15.99	15.96	879.91	
1	278,747	.19	15.44	15.25	864.66	
2	278,802	.67	15.03	14.36	850.28	
3	278,825	.58	15.16	14.58	835.70	
4	278,862	1.12	15.53	14.40	821.30	
5	278,907	.45	10.53	10.08	810.22	
6	278,962	.47	16.16	15.69	794.53	
7	279,027	1.55	15.87	14.32	780.21	
8	279,072	1.20	15.53	14.33	765.88	
9	279,112	.93	16.16	15.23	750.65	
1,540	279,137	.05	16.08	16.03	734.62	
1	279,172	1.60	17.31	15.71	718.91	
2	279,202	1.60	15.39	13.79	705.12	
3	279,226	1.73	16.39	14.66	690.46	
4	279,257	.15	16.09	15.94	674.52	
5	279,292	.29	15.96	15.67	658.85	
6	279,322	.55	17.13	16.58	642.27	
7	279,357	.55	15.70	15.15	627.12	
8	279,417	1.55	15.33	13.78	613.34	
9	279,452	1.60	16.63	15.03	598.31	
1,550	279,512	.31	16.95	16.64	581.67	
1	279,547	.39	16.03	15.64	566.03	
2	279,592	.08	17.05	16.97	549.06	
3	279,622	.00	15.74	15.74	533.32	
4	279,682	1.80	15.46	13.66	519.66	
5	279,712	.34	16.06	15.72	503.94	
6	279,737	1.83	14.72	12.89	491.05	
7	279,772	.88	15.46	14.58	476.47	
8	279,822	.39	15.41	15.02	461.45	
9	279,872	1.72	15.59	13.87	447.58	
1,560	279,912	1.50	14.91	13.41	434.17	
1	279,942	1.33	16.36	15.03	419.14	
2	279,967	.59	17.00	16.41	402.73	
3	279,997	.65	14.93	14.28	388.45	
4	280,022	.41	14.19	13.78	374.67	
5	280,062	.00	15.60	15.60	359.07	
6	280,114	1.19	15.28	14.09	344.98	
7	280,152	1.73	14.69	12.96	332.02	
8	280,222	1.02	16.00	14.98	317.04	
9	280,324	.96	15.30	14.34	302.70	
1,570	280,492	5.11	13.19	8.08	294.62	
1	280,532	3.80	14.86	11.06	283.56	
2	280,542	1.14	15.68	14.54	269.02	
3	280,567	4.02	14.90	10.88	258.14	
4	280,667	2.69	11.25	8.56	249.58	Bench mark, No. 32. September 27.
5	280,713	1.01	16.01	15.00	234.58	
	280,713				234.58	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	280,713				234.58	Brought up.
1,576	280,799	1.15	15.86	14.71	219.87	
7	280,857	.22	16.23	16.01	203.86	
8	280,922	.18	16.74	16.56	187.30	
9	281,034	1.27	15.82	14.55	172.75	
1,580	281,117	1.79	15.72	13.93	158.82	Level of dam at Island 15 feet across. Level of water in the river Quatawamkedgwick. 158.53 Q. 100 ft. wide. 137.47 R. 163.24 G. R.
1	281,122	8.68	13.05	4.37	154.45	
2	281,572	13.05	4.00	9.05	163.50	
3	281,807	4.00	8.97	4.97	158.53	
	281,807				158.53	
4	282,022	8.97	5.70	3.27	161.80	
5	282,382	6.64	1.28	5.36	167.16	
6	283,597	12.47	3.15	9.32	176.48	
7	283,677	15.30	.72	14.58	191.06	
8	283,731	14.96	.14	14.82	205.88	
9	283,862	13.47	.43	13.04	218.92	
1,590	283,922	13.48	.41	13.07	231.99	
1	283,972	15.27	1.30	13.97	245.96	
2	284,031	15.68	.69	14.99	260.95	
3	284,077	15.47	1.12	14.35	275.30	
4	284,164	15.63	2.25	13.38	288.68	
5	284,260	12.70	.48	12.22	300.90	
6	284,372	13.92	.16	13.76	314.66	
7	284,422	15.92	.68	15.24	329.90	
8	284,467	16.98	.79	16.19	346.09	
9	284,522	16.48	.68	15.80	361.89	
1,600	284,607	16.44	.50	15.94	377.83	
1	284,704	12.67	1.00	11.67	389.50	
2	284,779	16.13	1.27	14.86	404.36	
3	284,822	16.28	.85	15.43	419.79	
4	284,882	16.68	.23	16.45	436.24	
5	284,934	16.62	2.80	13.82	450.06	
6	284,972	16.24	2.50	13.74	463.80	
7	284,992	16.20	2.14	14.06	477.86	
8	285,034	17.18	2.26	14.92	492.78	
9	285,060	16.08	1.91	14.17	506.95	
1,610	285,080	16.41	2.01	14.40	521.35	
1	285,116	16.72	3.03	13.69	535.04	
2	285,147	15.79	2.68	13.11	548.15	
3	285,195	15.70	.28	15.42	563.57	
4	285,237	16.70	2.85	13.85	577.42	
5	285,270	15.28	2.33	12.95	590.37	
6	285,322	16.70	2.40	14.30	604.67	
7	285,357	16.32	2.07	14.25	618.92	
8	285,377	16.24	2.95	13.29	632.21	
9	285,407	17.69	1.82	15.87	648.08	
1,620	285,462	16.35	.03	16.32	664.40	
1	285,482	16.63	2.62	14.01	678.41	
2	285,522	17.44	1.52	15.92	694.33	
3	285,579	14.58	.21	14.37	708.70	
4	285,617	16.68	2.40	14.28	722.98	
5	285,649	17.00	2.53	14.47	737.45	
6	285,689	16.76	1.83	14.93	752.38	
7	285,728	18.21	1.49	16.72	769.10	
8	285,752	16.69	1.33	15.36	784.46	
9	285,774	16.97	2.11	14.86	799.32	
1,630	285,794	17.07	1.81	15.26	814.58	
1	285,831	18.01	1.22	16.79	831.37	
2	285,862	16.76	1.46	15.30	846.67	
3	285,877	16.90	2.30	14.60	861.27	
4	285,914	16.95	2.05	14.90	876.17	
5	285,942	16.35	1.65	14.70	890.87	
6	285,962	16.74	2.35	14.39	905.26	
7	286,005	17.32	2.15	15.17	920.43	
8	286,037	17.21	2.05	15.16	935.59	
9	286,102	15.82	.14	15.68	951.27	Carried over.
	286,102				951.27	

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference	Total height in feet above the River St. John.	Remarks.
1,640	286,102				951.27	Brought up.
1	286,142	17.53	2.42	16.11	966.38	
2	286,182	17.38	2.39	14.99	981.37	
3	286,227	16.17	1.86	14.31	995.68	
4	286,252	16.05	1.10	14.95	1,010.63	
5	286,292	16.27	.69	15.58	1,026.21	
6	286,322	16.96	.07	16.89	1,043.10	
7	286,352	16.84	.43	16.41	1,059.51	
8	286,385	16.80	.31	16.49	1,076.00	
9	286,418	16.87	.19	16.68	1,092.68	
1,650	286,446	15.98	.29	15.69	1,108.37	
1	286,476	14.53	.32	14.21	1,122.58	
2	286,502	16.25	.39	15.86	1,138.44	
3	286,534	16.00	.00	16.00	1,154.44	
4	286,592	16.00	.00	16.00	1,170.44	
5	286,652	15.55	.11	15.44	1,185.88	
6	286,752	15.48	.89	14.59	1,200.37	
7	287,052	16.58	1.56	15.02	1,215.40	
8	287,672	2.30	10.30	8.00	1,207.40	
9	287,852	12.10	.28	11.83	1,219.32	
1,660	288,059	16.04	.27	15.77	1,235.09	
1	288,217	14.73	.11	14.62	1,249.71	
2	288,350	17.45	.00	17.45	1,267.16	
3	288,477	15.15	.12	15.03	1,282.19	
4	288,572	15.89	.16	15.73	1,297.92	
5	288,662	15.59	.21	15.38	1,313.30	
6	288,799	16.47	.16	16.31	1,329.61	
7	288,895	16.23	.31	15.92	1,345.53	
8	289,047	16.58	.40	16.18	1,361.71	
9	289,317	15.04	4.87	10.17	1,371.88	
1,670	289,577	4.87	15.87	11.00	1,360.88	
1	289,732	2.13	17.28	15.15	1,345.73	
2	289,829	.91	16.90	15.99	1,329.74	
3	289,967	.66	16.91	16.25	1,313.49	
4	290,083	.41	16.58	16.17	1,297.32	
5	290,192	.40	16.50	16.10	1,281.22	
6	290,342	1.34	16.51	15.17	1,266.05	
7	290,467	.65	17.00	16.35	1,249.70	
8	290,642	17.00	.75	16.25	1,263.95	
9	290,745	15.32	.28	15.04	1,280.99	
1,680	290,887	13.90	.48	13.42	1,294.41	
1	291,010	15.14	.35	14.79	1,309.20	
2	291,177	15.00	.35	14.65	1,323.85	
3	291,302	13.68	.07	13.61	1,337.46	
4	291,417	15.37	.10	15.27	1,352.73	
5	291,533	16.82	.26	16.56	1,369.29	
6	291,629	15.92	.57	15.35	1,384.64	
7	291,832	16.57	.13	16.44	1,401.08	
8	292,117	11.36	2.00	9.36	1,410.44	
9	292,487	2.00	17.59	15.59	1,394.85	
1,690	292,687	.59	14.94	14.35	1,380.50	
1	292,992	.08	17.27	17.19	1,363.31	
2	293,277	1.09	16.78	15.69	1,347.62	
3	293,537	1.41	16.55	15.14	1,332.48	
4	293,817	.03	21.00	20.97	1,311.51	
5	294,267	21.00	2.40	18.60	1,330.11	
6	294,454	12.82	.93	11.89	1,342.00	
7	294,629	14.38	.72	13.66	1,355.66	
8	294,777	16.07	.20	15.87	1,371.53	
9	295,017	8.10	1.00	7.10	1,378.63	
1,700	295,317	1.00	15.00	14.00	1,364.63	
1	295,607	.46	13.16	12.70	1,351.93	
2	295,902	.44	17.75	17.31	1,334.62	
3	296,311	.59	11.30	10.71	1,323.91	
4	296,852	2.93	15.53	12.60	1,311.31	
5	296,997	1.19	17.13	15.94	1,295.37	
	297,117	.74	16.52	15.58	1,279.79	
	297,117				1,279.79	Carried over.

No. of Station.
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Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	297,117				1,279.79	Brought up.
1,706	297,229	.00	15.28	15.28	1,264.51	
7	297,382	.58	17.02	16.44	1,248.07	
8	297,566	.82	17.07	16.25	1,231.82	
9	297,807	1.41	15.72	14.31	1,217.51	
1,710	298,147	.74	1.08	.34	1,217.17	
1	298,477	11.33	.22	11.11	1,228.28	
2	299,087	9.50	14.38	4.88	1,223.40	
3	299,217	.85	17.04	16.19	1,207.21	
4	299,332	.94	17.53	16.59	1,190.62	
5	299,422	.64	16.49	15.85	1,174.77	
6	299,517	.61	16.98	16.37	1,158.45	
7	299,628	.64	17.56	16.92	1,141.53	
8	299,705	1.44	16.07	14.63	1,126.90	
9	299,870	.70	4.53	3.83	1,123.07	
1,720	300,017	13.71	.36	13.35	1,136.42	
1	300,297	15.11	.83	14.28	1,150.70	October 1.
2	300,637	15.53	1.16	14.37	1,165.07	
3	300,928	10.29	.00	10.29	1,175.36	
4	301,102	12.75	.18	12.57	1,187.93	
5	301,299	15.35	.76	14.59	1,202.52	
6	301,717	11.70	2.00	9.70	1,212.22	
7	302,017	2.00	17.29	15.29	1,196.93	
8	302,217	1.18	24.00	22.82	1,174.11	
9	302,625	24.00	10.35	13.65	1,187.76	
1,730	302,797	.89	15.15	14.26	1,173.50	
1	302,905	.42	16.69	16.27	1,157.23	
2	302,977	1.00	16.13	15.13	1,142.10	
3	303,030	.00	15.48	15.48	1,126.62	
4	303,227	.79	15.85	15.06	1,111.56	
5	303,427	.17	16.55	16.38	1,095.18	
6	304,129	7.65	.59	7.06	1,102.24	
7	304,327	15.10	.36	14.74	1,116.98	
8	304,514	15.90	.35	15.55	1,132.53	
9	304,605	15.26	.05	15.21	1,147.74	
1,740	304,717	15.32	.13	15.19	1,162.93	
1	304,877	15.02	.33	14.69	1,177.62	
2	305,017	16.44	1.73	14.71	1,192.33	
3	305,332	2.67	16.46	13.79	1,178.54	
4	305,507	1.40	14.81	13.41	1,165.13	
5	305,637	1.05	16.05	15.00	1,150.13	
6	305,777	.69	16.29	15.60	1,134.53	
7	305,874	.67	16.90	16.23	1,118.30	
8	306,087	.46	17.13	16.67	1,101.63	
9	306,224	.42	17.44	17.02	1,084.61	
1,750	306,432	.79	16.75	15.96	1,068.65	
1	306,602	.36	14.94	14.58	1,054.07	
2	307,474	.91	16.77	15.86	1,038.21	
3	308,047	.51	17.22	16.71	1,021.50	
4	308,323	1.70	16.70	14.47	1,007.03	
5	308,592	.66	16.59	15.93	991.10	
6	308,777	.67	15.86	15.19	975.91	
7	308,917	.65	16.95	16.30	959.61	
8	309,057	.69	15.95	15.26	944.35	
9	309,297	1.13	17.85	16.72	927.63	
1,760	309,511	.47	15.12	14.65	912.98	
1	309,697	.13	15.78	15.65	897.33	
2	309,799	.73	15.99	15.26	882.07	
3	309,917	.68	26.00	25.32	856.75	Brook running west.
4	310,097	26.00	1.02	24.98	881.73	
5	310,317	13.00	.61	12.39	894.12	
6	310,617	9.84	.78	9.06	903.18	
7	311,037	12.30	1.05	11.25	914.43	
8	311,425	13.06	.11	12.95	927.38	
9	311,667	16.01	.57	15.44	942.82	
1,770	312,125	14.00	.73	13.27	956.09	
1	312,517	10.86	4.00	6.86	962.95	
	312,517				962.95	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	312,517				962.95	Brought up.
1,772	312,817	4.00	13.91	9.91	953.04	
3	313,005	2.31	14.47	12.16	940.88	
4	313,417	2.13	15.21	13.08	927.80	
5	313,737	.42	16.93	16.51	911.29	
6	313,977	2.02	16.94	14.92	896.37	
7	314,107	.52	16.41	15.89	880.48	
8	314,235	.55	16.59	16.04	874.44	
9	314,332	.71	16.99	16.28	848.16	
1,780	314,435	.37	16.33	15.96	832.20	
1	314,507	1.17	16.74	15.57	816.63	
2	314,607	.54	17.24	16.70	799.93	
3	314,692	.49	16.45	15.96	783.97	
4	314,767	.19	17.32	17.13	766.84	
5	314,847	.83	16.91	16.08	750.76	
6	314,923	1.36	16.11	14.75	736.01	
7	315,007	.81	17.51	16.70	719.31	
8	315,112	.70	17.77	17.07	702.24	
9	315,205	.77	16.46	15.69	686.55	
1,790	315,329	.06	15.71	15.65	670.90	
1	315,587	.19	16.40	16.21	654.69	
2	315,802	.48	16.29	15.81	638.88	
3	315,877	.54	12.08	11.54	627.34	Bench mark, No. 34.
4	315,942	.08	15.00	14.92	612.42	October 2.
5	316,017	.75	16.39	15.64	596.88	
6	316,047	.57	16.99	16.42	580.46	
7	316,097	.74	16.60	15.86	564.30	
8	316,132	.49	16.79	16.30	548.00	
9	316,187	.40	16.64	16.24	521.76	
1,800	316,217	.14	16.35	16.21	515.55	
1	316,417	.64	6.67	6.03	509.52	Water in States Brook,
2	316,492	6.67	.86	5.81	515.33	18 feet wide.
3	316,517	16.85	.00	16.85	532.18	
4	316,569	15.17	.13	15.04	547.22	
5	316,617	13.50	.04	13.46	560.68	
6	316,642	16.01	.07	15.94	576.62	
7	316,682	15.90	.39	15.51	592.13	
8	316,737	15.75	.28	15.47	607.60	
9	316,832	16.47	.52	15.95	623.55	
1,810	317,003	10.55	.15	10.40	633.95	
1	317,267	12.51	4.00	8.51	642.46	
2	317,505	4.00	13.76	9.76	632.70	
3	317,547	1.45	16.01	14.56	618.14	
4	317,611	.04	17.35	17.31	600.83	
5	317,652	.75	16.63	15.88	584.95	
6	317,717	.42	16.62	16.20	568.75	
7	317,842	5.27	4.04	1.23	569.98	At 100 ft., small brook E.
8	317,892	16.22	.23	15.99	585.97	
9	317,923	16.59	.12	16.47	602.44	
1,820	317,967	16.81	.12	16.69	619.13	
1	318,007	14.60	.69	13.91	633.04	
2	318,137	13.98	.85	13.63	646.67	
3	318,317	17.21	1.15	16.06	662.73	
4	319,062	16.21	1.97	14.24	676.97	
5	319,367	10.50	.88	9.62	686.59	
6	319,630	15.60	.02	15.58	702.17	
7	319,907	11.70	.50	11.20	713.37	
8	320,147	15.68	1.52	14.16	727.53	
9	320,407	13.70	.52	13.18	740.71	
1,830	320,616	17.09	.62	16.47	757.18	
1	320,775	14.18	.60	13.58	770.76	
2	320,982	15.22	.43	14.79	785.55	
3	321,217	14.60	1.20	13.40	798.95	
4	321,393	13.04	.05	12.99	811.94	
5	322,177	11.73	2.43	9.30	821.24	
6	322,817	3.81	10.43	6.62	814.62	
7	323,337	1.42	14.22	12.80	801.82	
	323,337				801.82	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	323,837				801.89	Brought up.
1,838	323,657	2.00	16.15	14.15	787.67	
9	323,877	1.45	15.15	13.70	773.97	
1,840	324,012	1.62	11.90	10.28	763.69	Bench mark, No. 85.
1	324,137	.00	14.59	13.69	750.00	October 3.
2	324,329	1.07	16.37	15.30	734.70	
3	324,517	1.13	16.22	15.09	719.61	
4	324,757	.11	14.23	14.12	705.49	
5	324,937	.86	15.95	15.09	690.40	
6	325,187	1.42	15.37	14.15	676.25	
7	325,339	1.07	15.11	13.14	663.11	
8	325,429	.04	15.58	15.19	647.92	
9	325,477	.00	15.33	15.33	632.59	
1,850	325,747	2.68	1.74	.94	633.53	At 60 ft., small brook E.
1	325,835	14.52	.00	14.52	648.05	
2	325,897	12.84	.41	12.43	660.48	
3	325,997	14.25	.70	13.55	674.03	
4	326,147	13.42	1.58	11.84	685.87	
5	326,537	11.86	1.85	10.01	695.88	
6	327,037	7.89	1.37	6.52	702.40	
7	327,367	10.39	1.09	9.30	711.70	
8	327,677	8.59	2.19	6.40	718.10	
9	327,867	14.25	.94	13.31	732.01	
1,860	328,045	16.05	.14	15.91	747.92	
1	328,247	16.98	.03	16.95	764.87	
2	328,507	13.31	.10	15.12	779.99	
3	328,845	13.54	.66	12.88	792.87	
4	329,752	10.91	4.34	6.57	799.44	
5	330,207	3.50	12.28	8.78	790.66	
6	330,677	1.74	14.59	12.85	777.81	
7	330,937	.93	2.13	1.20	776.61	Small brook E., 4 ft. lower.
8	331,587	7.48	5.70	1.78	778.39	
9	331,712	7.92	.56	7.36	785.75	
1,870	332,265	6.70	1.81	4.89	790.64	
1	332,512	11.08	.77	10.31	800.95	
2	332,782	12.99	.89	12.10	813.05	
3	333,052	16.48	.35	16.13	829.18	
4	333,282	12.92	.58	12.34	841.72	
5	333,432	17.00	1.38	15.62	857.34	
6	333,627	15.90	.66	15.24	872.58	
7	333,882	15.00	.45	14.55	887.13	
8	334,287	13.57	4.00	9.57	896.70	
9	334,577	4.00	14.04	10.04	886.66	
1,880	334,815	1.09	16.21	15.12	871.54	
1	334,986	.33	17.19	16.66	854.88	
2	335,052	1.05	13.92	12.87	842.01	
3	335,117	1.15	15.38	14.23	827.78	
4	335,167	.10	15.31	15.21	812.57	
5	335,197	.44	10.75	10.31	802.26	
6	335,287	.80	19.50	18.70	783.56	
7	335,437	19.50	1.05	18.45	802.01	
8	335,507	15.31	.52	14.79	816.80	
9	335,580	16.31	.40	15.91	832.71	
1,890	335,672	15.17	.49	14.68	847.39	
1	335,833	13.30	.44	12.86	860.25	
2	336,067	12.52	2.58	9.94	870.19	
3	336,632	9.19	4.67	4.52	874.71	
4	337,122	7.50	6.25	1.25	875.96	
5	337,392	3.11	9.93	6.82	869.14	
6	337,632	1.62	16.42	14.80	854.34	
7	337,742	.91	16.45	15.54	838.80	
8	337,822	.70	15.52	14.82	823.98	
9	337,887	.45	14.88	14.43	809.55	
1,900	337,949	.70	16.04	15.34	794.21	
1	338,012	1.35	15.64	14.29	779.92	
2	338,051	.37	12.40	12.03	767.89	
3	338,242	.28	16.22	15.94	751.95	
	338,242				751.95	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	338,242				751.95	Brought up.
1,904	338,292	.88	14.89	14.01	737.94	States brook E., 2ft. lower.
5	338,352	.24	6.35	6.11	731.83	
6	338,543	13.64	.35	13.29	745.12	
7	358,587	15.53	.36	15.17	760.29	
8	338,847	11.00	.43	10.57	770.86	
9	338,944	15.96	.01	15.95	786.81	
1,910	339,237	15.52	.10	15.42	802.23	
1	339,507	14.92	4.00	10.92	813.15	
2	339,917	4.00	11.50	7.50	805.65	
3	340,457	3.88	1.88	2.00	807.65	
4	340,717	15.70	.68	15.02	822.67	
5	340,912	15.71	.52	15.19	837.86	
6	341,107	16.70	.54	16.16	854.02	
7	341,231	16.98	1.23	15.75	869.77	
8	341,367	17.54	.35	17.19	886.96	
9	341,562	17.71	.09	17.62	904.58	
1,920	341,782	16.73	.26	16.47	921.05	
1	342,002	18.00	.27	17.73	938.78	
2	342,197	14.54	.42	14.12	952.9	
3	342,637	18.00	1.00	17.00	969.9	
4	342,887	9.10	3.82	5.28	975.18	
5	343,417	3.82	11.41	7.59	967.59	
6	343,947	1.50	10.69	9.17	958.42	
7	344,327	2.76	1.87	.89	959.31	
8	344,567	6.44	.46	5.98	965.29	
9	345,482	3.68	4.08	.40	964.89	
1,930	345,937	3.37	10.86	7.49	957.40	
1	345,974	11.41	22.78	11.37	946.03	
2	346,367	22.78	1.10	21.68	967.71	
3	346,737	14.80	1.60	13.20	980.91	
4	347,412	16.70	1.47	15.23	996.14	
5	347,832	17.10	.66	16.44	1,012.58	
6	348,207	16.93	1.54	15.39	1,027.97	
7	348,437	7.83	3.80	4.03	1,032.00	
8	348,687	3.80	2.50	1.30	1,033.30	
9	349,387	4.46	1.40	3.06	1,036.36	
1,940	349,622	17.20	.79	16.41	1,052.77	
1	349,837	17.83	.32	17.51	1,070.28	
2	350,052	15.47	.66	14.81	1,085.09	
3	350,337	13.20	1.62	11.58	1,096.67	
4	350,637	12.59	1.41	11.18	1,107.85	
5	351,137	17.11	3.88	13.23	1,121.08	
6	351,477	3.88	11.77	7.89	1,113.19	
7	351,737	2.95	16.30	13.35	1,099.84	
8	351,957	1.27	17.02	15.75	1,084.09	
9	352,137	.89	16.85	15.96	1,068.13	
1,950	352,267	1.16	16.57	15.41	1,052.72	
1	352,449	.18	17.07	16.89	1,035.83	
2	352,597	.89	15.59	14.70	1,021.13	
3	352,752	.56	16.17	15.61	1,005.52	
4	352,897	.87	16.96	16.09	989.43	
5	353,043	.78	16.23	15.45	973.98	
6	353,197	.49	17.06	16.57	957.41	
7	353,287	1.07	17.09	16.02	941.39	
8	353,377	.34	17.46	17.12	924.27	
9	353,487	.33	17.22	16.89	907.38	
1,960	353,637	.80	6.83	6.03	901.35	
1	353,737	6.07	7.80	1.73	899.62	
2	353,887	7.80	2.15	5.65	905.27	
3	354,087	10.09	1.16	8.93	914.20	
4	354,337	13.50	1.25	12.25	926.45	
5	354,387	18.01	.52	17.49	943.94	
6	354,517	17.07	.55	16.52	960.46	
7	354,637	15.79	.95	14.84	975.30	
8	354,837	13.58	4.00	9.58	984.88	
9	355,107	4.00	15.43	11.43	973.45	
	355,107				973.45	Carried over.

Levelling Register.—Continued.

No. of Station.	Distance in feet from the River St. John.	Back Sight.	Fore Sight.	Difference.	Total height in feet above the River St. John.	Remarks.
	355,107				973.45	Brought up.
1,970	355,195	1.82	7.82	6.00	967.45	
1	355,212	7.82	1.82	6.00	973.45	
2	355,368	1.82	16.12	14.30	959.15	
3	355,490	1.23	16.65	15.42	943.73	
4	355,500	2.20	17.62	15.42	928.31	
5	355,690	1.23	8.39	7.16	921.15	Brook running E.
6	355,750	8.39	4.65	3.74	924.89	
7	355,900	13.97	.45	13.52	938.41	
8	356,020	15.22	.45	14.77	953.18	
9	356,200	15.92	.39	15.53	968.71	
1,980	356,690	17.55	.23	17.32	986.03	
1	357,160	7.08	2.16	4.92	990.95	
2	357,800	15.52	4.00	11.52	1,002.47	
3	358,100	4.60	15.40	11.40	991.07	
4	358,410	1.41	14.02	12.61	978.46	
5	358,580	1.09	15.98	14.89	963.57	
6	358,700	1.03	16.98	15.95	947.62	
7	358,800	.64	17.12	16.48	931.14	
8	358,900	.50	17.15	16.65	914.49	
9	358,985	.04	16.93	16.89	897.60	
1,990	359,100	.35	17.28	16.93	880.67	
1	359,450	.74	16.13	15.39	865.28	
2	359,630	2.38	14.54	12.16	853.12	
3	359,750	1.04	16.37	15.33	837.79	
4	359,810	.99	9.80	8.81	828.98	Bench mark, No. 37. October 6.
5	359,900	.39	16.80	16.41	812.57	
6	360,075	.70	16.44	15.74	796.83	
7	360,218	.00	16.29	16.29	780.54	
8	360,390	1.44	16.67	15.23	765.31	
9	360,475	.00	17.28	17.28	748.03	
2,000	360,604	1.69	14.34	12.65	735.38	
1	360,928	2.57	17.15	14.58	720.80	
2	361,117	1.57	16.96	15.39	705.41	
3	361,617	2.12	14.94	12.82	692.59	
4	361,792	1.28	6.84	5.56	687.03	
5	362,218	3.01	9.11	6.10	680.93	
6	362,520	1.82	12.44	10.62	670.31	Bench mark, No. 38. Beaver Stream.
7	362,825	3.01	7.22	4.21	666.10	
	362,825				666.10	

68 miles, 4,785 feet.

ABSTRACT.

Height of water in Grand River, above the St. John	..	..	163.24 feet.
Ditto in Restigouche	..	..	137.47
Ditto in Quatawamkedgwick	..	..	158.53
Ditto in Beaver Stream.	..	..	666.10

(Signed)

W. E. DELVES BROUGHTON,
Royal Engineers.

(Signed)

J. D. FEATHERSTONHAUGH.

*Registry of the State of Instruments on arriving at the Grand Falls.
August 14, 1840.*

	A.		Th. A.	Th. D.	
No. 1	29.252		68½	68½	Troughton's.
No. 2	29.288		58½	"	} Newman's.
411	743.3		68½	"	
413	743.05		20	20	
414	743.15		"	"	Bunten's.
416	743.0		"	"	
418	743.1		"	"	

MEMORANDUM.

	Newman, No. 1.	Do., No. 2.
Capacity	17	17
Neutral Point	29.802	29.802
Capillarity Att.	+ .042	+ .042
	1000	1000
Temp. Fahr.	68°	64°

Record of Barometric Observations.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks, &c.
1840 August 24, 8 A.M.	Grand Falls *	A. No. 1 411	29.134 29.148 740.1	68 67½ 20	69	North wind; cloudy and threatening rain.
12		A. No. 1 411	29.234 29.246 741.3	69½ 61½ 21	70	
4 P.M.		A. No. 1 411	29.30 29.314 742.7	70 70 21	70	
August 25, 8 A.M.	Grand Falls	A. No. 1 411	29.526 29.524 747.6	59 57½ 16	61	North-west wind; cloudy.
12		A. No. 1 411	29.534 29.540 748.0	65½ 65½ 19	66	
4 P.M.		A. No. 1 411	29.520 29.526 748.2	72 72 22½	72	
August 26, 8 A.M.	Grand Falls	A. No. 1 411	29.562 29.564 747.7	50½ 49½ 11	51½	Wind north-west.
12		A. No. 1 411	59.554 29.562 749.2	69 68 21	69	
4 P.M.		A. No. 1 411	29.564 29.550 749.2	72½ 72 23	73	

* The Observatory at the Grand Falls is 100 feet above the surface of the St. John, at its intersection by the exploratory duo North Line.

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 August 27, 8 A.M.	Grand Falls	A. No. 1 411	29·620 29·616 749·7	53½ 51½ 12	54½	Wind north-west.
12		A. No. 1 411	29·652 29·654 753·0	74½ 72 24½	76	
4 P.M.		A. No. 1 411	29·646 29·666 752·8	74½ 74 24	75	
August 28, 8 A.M.	Grand Falls	A. No. 1 411	29·762 29·756 755·0	61 59½ 17	63	Wind south-east; clear weather.
12		A. No. 1 411	29·734 29·750 755·1	73 72 23	73	
4 P.M.		A. No. 1 411	29·684 29·70 754·2	76 75½ 24½	76	
August 29, 4 A.M.	Grand Falls	A. No. 1 411	29·704 29·714 753·9	62 61 17	63	Wind south; heavy and cloudy weather.
12		A. No. 1 411	29·712 29·720 754·2	72 70½ 22½	73	
4 P.M.		A. No. 1 411	29·684 29·692 753·7	75½ 75 24½	76	
8 A.M.	On due north line station, No. 111, p. 8.	2 413 414 416 418	29·388 746·6 747·1 746·3 746·9	60 15½ 15½ 15½ 15½	60	
August 30, 8 A.M.	Grand Falls	A. No. 1 411	29·634 29·650 752·4	60½ 60 16	61	Wind south.
12		A. No. 1 411	29·612 29·624 752·1	67 66½ 20	68	Wind south-east; cloudy.
4 P.M.		A. No. 1 411	29·562 29·582 751·0	68½ 68½ 20½	68½	Wind south; cloudy.
4 P.M.	On due north line station, No. 173, p. 9.	2 413 414 416 418	29·188 740·8 741·0 740·0 740·9	68 19½ 19½ 19½ 19½	66	
August 31, 8 A.M.	Grand Falls	A. No. 1 411	29·364 29·388 745·9	64 63½ 13	64	Wind south; cloudy.

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 August 31, 12	Grand Falls	A. No. 1 411	29·350 29·376 745·4	68 67 20	68	Wind south-west.
4 P.M.		A. No. 1 411	29·330 29·360 744·9	69 68 20½	69	Wind south-west.
8 A.M.	Due north line station, No. 173, p. 9.	2 413 414 416 419	29·008 735·8 736·2 735·9 735·8	52 17 17 17 17	62	
4 P.M.	Due north line station, No. 203, p. 10.	2 413 414 416 418	29·038 737·6 737·7 737·5 737·4	70 21 21 21 21	68	
September 1, 8 A.M.	Grand Falls	A. No. 1 411	29·292 29·314 743·0	58 55 14½	58½	Wind west; cloudy.
12		A. No. 1 411	29·270 29·296 743·3	64 64 18	64	Wind west; heavy.
4 P.M.		A. No. 1 411	29·262 29·286 742·6	65 64 19	55	Wind west; thunder and showers.
4 P.M.	Due north line on north bank of Grand River, six feet above the level of the water.	2 413 414 416 418	29·202 741·3 741·5 741·4 741·6	59 16 16 16 16	62 16	
September 2, 8 A.M.	Grand Falls	A. No. 1 411	29·324 29·340 743·1	50 49 10	50½	Wind south; cloudy.
12		A. No. 1 411	29·270 29·292 743·0	64½ 64 18½	64½	Strong breeze; wind south-south-west.
4 P.M.		A. No. 1 411	29·230 29·252 742·3	60 60 16	60	Wind south, with rain.
8 A.M.	Due north line on north bank of Grand River, six feet above the level of the water.	2 413 414 416 418	29·274 742·6 742·7 742·6 742·4	48 9 9 9 9	48 9	
September 3, 8 A.M.	Grand Falls	A. No. 1 411	29·216 29·232 741·3	56 55 13½	56	Wind west.
12		A. No. 1 411	29·250 29·268 741·9	59 58½ 15	59	

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 September 4, 4 P.M.	Grand Falls	A. No. 1 411	29·612 29·624 750·5	67 66 19½	67	Wind north-west; clear.
8 A.M.	On Line Station, No. 385, p. 12.	2 413 414 416 418	29·190 740·65 740·9 740·85 741·0	53½ 12 12 12 12	53	
September 5, 8 A.M.	Grand Falls	A. No. 1 411	29·674 29·680 751·5	44 43 7	45	Wind north-west; thick fog.
12		A. No. 1 411	29·650 29·666 752·3	67½ 67 21	70	Wind south; clear.
4 P.M.		A. No. 1 411	29·604 29·618 751·9	68½ 69 20½	68½	Wind south; cloudy.
September 6, 8 A.M.	Grand Falls	A. No. 1 411	29·466 29·482 748·3	55½ 55 13½	56	Wind north-west; cloudy.
12		A. No. 1 411	29·448 29·474 748·1	65½ 65 19	67	Wind north-west; cloudy.
4 P.M.		A. No. 1 411	29·408 29·430 746·8	68½ 68½ 20½	69	Wind north-west; cloudy.
8 A.M.	On north side of the Res- tigouche, opposite the mouth of the Wagan, five feet above water.	2 413 414 416 418	29·406 746·7 747·2 746·8 747·1	54 12½ 12½ 12½ 12½	54 12½	
12	At same place	2 413 414 416 416	29·418 746·1 746·5 746·1 746·2	68½ 20	67	
September 7, 8 A.M.	Grand Falls	A. No. 1 411	29·548 29·562 747·4	53½ 52 12½	54½	Wind north-west; cloudy.
12		A. No. 1 411	29·572 29·604 750·5	69½ 68 21	70½	Wind north-west; clear.
4 P.M.		A. No. 1 411	29·598 29·610 751·1	73 72 23	74	Wind north-west; clear.
September 8, 8 A.M.	Grand Falls	A. No. 1 411	29·562 29·578 750·1	54 52½ 12½	54	Wind south.
12		A. No. 1 411	29·544 29·564 750·2	70 69½ 21	70½	Wind south-east; sultry.

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 Sept. 8, 4 P.M.	Grand Falls	A. No. 1 411	29.492 29.510 749.0	72 72 22½	72	Wind south-west; cloudy.
8 A.M.	On north bank of Restigouche, five miles below the due north line, twelve feet above the level of water.	2 413 414 416 418	29.540 750.0 750.2 750.0 750.1	55 13 13 13 13	54 13	
Sept. 9, 8 A.M.	Grand Falls	A. No. 1 411	29.322 29.334 744.2	62 62 17	62	Wind south-west; cloudy.
12		A. No. 1 411	29.316 29.338 744.2	70 69½ 21½	71	Wind south.
4 P.M.		A. No. 1 411	29.290 29.314 743.7	70 69½ 21	70	Wind south; heavy clouds, with rain.
8 A.M.	On north bank of the Restigouche, five miles below due north line, twelve feet above the level of the water.	2 413 414 416 418	29.272 743.3 743.3 742.9 743.3	61 16 16 16 16	60½ 16	
Sept. 10, 8 A.M.	Grand Falls	A. No. 1 411	29.204 29.228 741.6	61 60½ 16	61	Wind south; thun- der clouds.
12		A. No. 1 411	29.220 29.244 742.2	68 67 20	68	Heavy.
4 P.M.		A. No. 1 411	29.212 29.230 741.9	64½ 64½ 18	64	Showery.
Sept. 11, 8 A.M.	Grand Falls	A. No. 1 411	29.220 29.238 741.2	53 53 11½	53	Wind north-west; heavy rain.
12		A. No. 1 411	29.206 29.226 741.1	55 54½ 12½	55	Rain.
4 P.M.		A. No. 1 411	29.270 29.286 742.3	55 54½ 13	55	Wind north-west; clearing.
Sept. 12, 8 A.M.	Grand Falls	A. No. 1 411	29.552 29.554 748.0	45 45 7	45	Wind north-west; cloudy.
12		A. No. 1 411	29.574 29.578 750.6	51 51 11	51½	Wind north-west; clearing.
4 P.M.		A. No. 1 411	29.578 29.592 750.8	56½ 56½ 14	57	Wind north-west; cloudy.

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 Sept. 12, 8 A.M.	Seven feet above high water mark, Campbell Town, on Baie des Chaleurs.	413 414 416	765.5 765.9 765.4	10 10 10	49	
12		413 414 416	765.2 765.6 765.3	12 12 12	52½	
4 P.M.		413 414 416	765.6 766.1 766.1	17½ 17½ 17½	64	
4 P.M.	At station No. 577, on due north line, p. 15.	2 418	29.242 742.5	57 14	55 13	
Sept. 13, 8 A.M.	Grand Falls	A. No. 1 411	29.670 29.690 752.2	42½ 41½ 6	42½	Slight frost; wind north-west.
12		A. No. 1 411	29.704 29.710 754.0	58½ 57½ 15	58½	Wind north-west.
4 P.M.		A. No. 1 411	29.584 29.592 753.9	61 61 15½	61½	Wind north-west.
8 A.M.	At the same station at Campbell Town.	413 414 416	768.2 768.4 768.2	13 13 13	52½	
12		413 414 416	767.5 768.1 767.7	16 16 16	60½	
4 P.M.		413 414 416	767.6 767.6 767.4	17 17 17	61½	
8 A.M.	At station No. 577, on due north line, p. 15.	2 418	29.318 744.7	40½ 6	41 5	
4 P.M.		2 418	29.336 744.6	58½ 13½	56 13	
Sept. 14, 8 A.M.	Grand Falls	A. No. 1 411	29.652 29.658 753.7	43 42 6	42½	Wind north-west; showery.
12		A. No. 1 411	29.608 29.626 752.3	56 55 13½	56	Wind north-west.
4 P.M.		A. No. 1 411	29.562 29.576 751.1	57 56½ 13½	57	Wind north-west; cloudy.
8 A.M.	At station No. 557, p. 15, as yesterday.	* 2 418	29.420 743.8	38 2½	37½	
Sept. 15, 8 A.M.	Grand Falls	A. No. 1 411	29.360 29.378 743.6	49 48½ 9½	49	Wind north-west; heavy rain.

* 2 Contains air, and no further dependence can be placed upon its registry.

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 Sept. 15, 12	Grand Falls	A. No. 1 411	29·364 29·388 745·2	54½ 53½ 12	54	Wind north-west; rain.
4 P.M.		A. No. 1 411	29·394 29·412 745·8	49½ 50 9½	49½	Wind north-west; rain.
8 A.M.	At station 639, p. 16, due north line.	2 418	28·750 729·8	47½ 8	46	
4 P.M.	At station 699, p. 17, six feet above the station, on due north line.	2 418	28·950 735·0	54 11½	51	
Sept. 16, 8 A.M.	Grand Falls	A. No. 1 411	29·528 29·536 747·6	47 46½ 8½	47½	Wind south.
12		A. No. 1 411	29·592 29·600 749·2	60 59 16½	62	Wind west.
4 P.M.		A. No. 1 411	29·596 29·610 749·8	67 66½ 19½	67	Wind south-west.
8 A.M.	At station 699, p. 17, as yesterday.	2 418	29·068 737·9	42 4½	40½	
Sept. 17, 8 A.M.	Grand Falls	A. No. 1 411	29·608 29·620 751·0	47 45½ 8½	47½	Wind south-west.
12		A. No. 1 411	29·606 29·620 751·7	67 67 19½	69	Wind south.
4 P.M.		A. No. 1 411	29·562 29·572 750·8	71½ 71½ 22	72	Wind south-south- west.
Sept. 18, 8 A.M.	Grand Falls	A. No. 1 411	29·554 29·560 749·9	51½ 50½ 11	52	Wind south.
12		A. No. 1 411	29·564 29·576 750·3	57½ 57 9½	58	Wind south.
4 P.M.		A. No. 1 411	29·560 29·574 750·3	61 60½ 16	61	Wind south.
8 A.M.	At four feet below station 855, p. 20, on due north line.	2 418	29·320 744·6	43 6½	43	
Sept. 19, 8 A.M.	Grand Falls	A. No. 1 411	29·480 29·506 748·6	50 49½ 10½	52	Wind south-south- east.
12		A. No. 1 411	29·414 29·430 747·0	59 58½ 15½	60	Wind south-south- west.

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 Sept. 19, 4 P.M.	Grand Falls	A. No. 1 411	29·302 29·320 744·4	58½ 58½ 15	58½	Wind south-south-east.
8 A.M.	At four feet above station 913, p. 20, on due north line.	2 418	29·012 735·7	51 9½	48½	
Sept. 20, 8 A.M.	Grand Falls	A. No. 1 411	28·898 28·920 734·0	52 51½ 11½	52½	Wind south-west; cloudy and rain.
12		A. No. 1 411	28·844 28·874 732·7	57½ 56½ 14	58	Wind south-west.
4 P.M.		A. No. 1 411	28·798 28·832 731·6	56½ 56½ 13½	56½	Wind south-west; heavy rain.
Sept. 21, 8 A.M.	Grand Falls	A. No. 1 411	28·882 28·890 733·7	44½ 44 7	44½	Wind west.
12		A. No. 1 411	29·016 29·038 735·0	51 50½ 10½	51	Wind west.
4 P.M.		A. No. 1 411	29·046 29·066 737·0	50 50 10	50	Wind west.
12	At station 1,076, p. 23, five feet above station on due north line.	2 418	28·632 737·1	50 9	46½	
Sept. 22, 8 A.M.	Grand Falls	A. No. 1 411	29·414 29·432 742·8	38 37½ 5	37	Wind north-west; much rain and sleet.
12		A. No. 1 411	29·482 99·498 746·3	39 39 4	39	Wind north-west, blowing hard; snow.
4 P.M.		A. No. 1 411	29·512 29·522 746·7	38½ 37½ 3½	38	Wind north-west; moderating.
8 A.M.	On Quatawamkedgwick, eight feet above the level of the river, on due north line. P. 31.	413 414 416	743·9 743·8 743·7	3½ 3½ 3½	38	
Sept. 23, 8 A.M.	Grand Falls	A. No. 1 411	29·552 29·554 750·1	36 36 2	35½	Wind south; sleet constant.
12		A. No. 1 411	29·588 29·600 750·6	41 40 5	41	Wind south-south- east; clearer.
4 P.M.		A. No. 1 411	29·616 29·622 750·9	44 43½ 6½	44½	Wind north west.

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840						
Sept. 23,						
8 A.M.	Eight feet above water, Quantawamkedgwick, on due north line.	413 748.3 414 748.7 416 749.1	1 1/2 1 1/2 1 1/2	35 1/2		
12		413 746.7 414 746.7 416 749.5	7 1/2 7 1/2 7 1/2	43	Rain.	
8 A.M.	Three feet above station 1,190, p. 25, on due north line.	2 28.466 418 722.9	32 — 1/2	31		
Sept. 24,						
8 A.M.	Grand Falls	A. 29.838 No. 1 29.834 411 755.0	35 34 1/2 1 1/2	34 1/2	Wind north-west; frost.	
12		A. 29.864 No. 1 29.876 411 758.5	48 1/2 47 1/2 9 1/2	49 1/2	Wind north-west.	
4 P.M.		A. 29.824 No. 1 29.831 411 757.4	55 55 13 1/2	57	Wind north-west.	
8 A.M.	Same place as yesterday ..	413 755.0 414 755.0 416 753.3	— 1/2 — 1/2 — 1/2	30		
12		413 756.1 414 756.5 416 756.3	14 14 14	54		
4 P.M.		413 754.1 414 754.5 416 754.1	8 8 8	46 1/2		
Sept. 25,						
8 A.M.	Grand Falls	A. 29.774 No. 1 29.774 411 755.8	35 34 1/2 1 1/2	35	Wind south-south- west; frost and thick fog.	
12		A. 29.760 No. 1 29.770 411 755.8	59 1/2 58 16 1/2	61 1/2	Wind west.	
4 P.M.		A. 29.704 No. 1 29.716 411 754.6	65 65 18 1/2	66 1/2	Wind south-west.	
8 A.M.	At the same place as yeste. day.	413 753.1 414 753.1 416 752.8	1 1/2 1 1/2 1 1/2	33 1/2	Frosty.	
12		413 752.8 414 753.1 416 752.6	20 1/2 20 1/2 20 1/2	63 1/2		
4 P.M.		2 29.566 413 750.9 414 750.6 416 750.7 418 751.3	56 13 1/2 13 1/2 13 1/2 13 1/2	55		
Sept. 26,						
8 A.M.	Grand Falls	A. 29.630 No. 1 29.638 411 752.3	40 39 4 1/2	40 1/2	Wind south-east.	

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 Sept. 26, 19	Grand Falls	A. No. 1 411	29·686 29·646 752·4	64½ 64 19	67	Wind south-east.
4 P.M.		A. No. 1 411	29·576 29·590 751·4	68 68 20	68	Wind south-east.
8 A.M.	Same place as yesterday ..	2 413 414 416 418	29·524 749·6 750·0 749·6 746·8	43 5½ 5½ 5½ 5½	42 42	
4 P.M.		2 413 414 416 418	29·442 747·5 747·6 746·7 747·4	61 14½ 14½ 14½ 14½	57	
Sept. 27, 8 A.M.	Grand Falls	A. No. 1 411	29·426 29·438 747·2	53½ 53 12	54	Wind south to south-west; misty.
12		A. No. 1 411	29·374 29·392 746·3	63 62½ 17½	63½	Wind south-east to south-west.
4 P.M.		A. No. 1 411	29·334 29·350 745·0	64 64 18	64½	Wind south-west.
8 A.M.	Same place as yesterday ..	2 413 414 416 418	29·314 744·0 744·4 744·4 744·3	52 10 10 10 10	51	
4 P.M.		2 413 414 416 418	29·224 741·9 742·0 741·9 742·0	64 12½ 12½ 12½ 12½	61½	
Sept. 28, 8 A.M.	Grand Falls	A. No. 1 411	29·426 29·438 745·2	46 46½ 8	46½	Wind north-west; rain.
12		A. No. 1 411	29·466 29·476 745·6	45 45 6	45	Wind north-west; frequent showers.
4 P.M.		A. No. 1 411	29·470 29·474 745·8	50 49½ 10	50½	Wind north-west to south-west; clearing.
8 A.M.	At same place as yesterday, on the Quatawamkedg- wick.	2 413 414 416 418	29·348 745·0 745·0 744·6 744·9	42 6 6 6 6	44	
12	At station 1,655, p. 32, at the top of mountain, above river.	2 413 414 416 418	28·284 717·8 718·0 717·9 718·3	50½ 10 10 10 10	46½	

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 Sept. 29, 8 A.M.	Grand Falls	A. No. 1 411	29·556 29·562 747·8	37 36½ 2½	37	Wind south-west; dark fog and frosty.
12		A. No. 1 481	29·576 29·590 749·1	53 52 12½	54½	Wind north-west.
4 P.M.		A. No. 1 411	29·566 29·582 749·3	60 60½ 16	60½	Wind south-west.
8 A.M.	At station 1,719, p. 33, on due north line, twelve feet below station.	2 413 414 416 418	28·472 722·4 722·4 722·3 722·5	44 8 8 8 8	44½	
12	Same station.....	2 413 414 416 418	28·484 722·6 723·0 722·5 722·4	54 13 13 13 13	54	
Sept. 30, 8 A.M.	Grand Falls	A. No. 1 411	29·496 29·512 748·2	45 44½ 7	45½	Wind south-south- west; thick fog.
12		A. No. 1 411	29·558 29·568 749·1	58 58 14½	58	Wind north-west, blowing hard.
4 P.M.		A. No. 1 411	29·598 29·602 749·4	57½ 57 14	58	Wind north-west, moderating.
8 A.M.	Same station as yesterday..	2 413 414 416 418	28·416 721·0 721·0 720·9 720·8	49 10 10 10 10	51½	
4 P.M.	At station 1,764, p. 33, on due north line.	2 413 414 416 418	28·752 729·6 730·2 729·8 730·0	50 10 10 10 10	49	
October 1, 8 A.M.	Grand Falls	A. No. 1 411	29·842 29·838 754·6	34 33 1	33½	Wind north-west; frost.
12		A. No. 1 411	29·840 29·842 756·6	47½ 47½ 9	48½	Wind north-west.
4 P.M.		A. No. 1 411	29·830 29·830 756·8	54 54 13	51	Wind south-west.
8 A.M.	Same place as yesterday, on due north line, 1,764, p. 33.	2 413 414 416 418	28·976 734·5 735·4 735·0 734·4	29 1½ 1 1 1	29 29	Hard frost; mercury rising fast.

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 October 1, 4 P.M.	At station on the rivulet ..	2 413 414 416 418	29·280 743·2 743·5 742·9 743·7	41 5 5 5 5	41	
October 2, 8 A.M.	Grand Falls	A. No. 1 411	29·810 29·810 755·8	33 32½ —	33	Wind west-south-west; frost.
12		A. No. 1 411	29·789 29·800 756·0	41½ 40½ 8½	42 42	Wind west-south-west; rain.
4 P.M.		A. No. 1 411	29·778 29·778 755·7	45½ 45 7½	45	Wind south-south-east; misty.
8 A.M.	Same place as last evening.	2 413 414 416 418	28·250 742·9 743·2 742·7 742·5	29½ 1 1 1 1	29½	
4 P.M.	On margin of the Caribou Plain, station 1,868, p. 35	2 413 414 416 418	29·000 736·4 736·5 736·5 736·7	42 5 5 5 5	41½	
October 3, 8 A.M.	Grand Falls	A. No. 1 411	29·602 22·612 751·8	48 47½ 8½	48	Wind south-south-east; misty.
12		A. No. 1 411	29·478 29·492 748·9	54 53½ 12	54½	Wind south-south-east; rain and mist.
4 P.M.		A. No. 1 411	29·344 29·360 745·3	59 58½ 15	59½	Wind south-south-east; constant rain.
8 A.M.	Station same as last evening, 1,868, p. 35.	2 413 414 416 418	28·842 731·8 732·2 731·6 732·1	46½ 8 8 8 8	46½	
4 P.M.	Four feet above station 1,907, p. 36.	2 413 414 416 418	28·610 725·8 725·9 725·7 726·1	55 13 13 13 13	55	
October 4, 8 A.M.	Grand Falls	A. No. 1 411	29·432 29·442 744·9	39 38½ 4	39	Wind south-west; rain.
12		A. No. 1 411	29·418 29·426 745·4	50 49½ 10½	50½	Wind south-west; clearing.
4 P.M.		A. No. 1 411	29·396 29·410 745·3	54 54 12½	54½	Wind south-west.

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 October 4, 8 A.M.	Four feet above station 1,907, p. 36, same as yesterday.	2 413 414 416 418	28.682 727.9 728.1 727.5 728.2	37 3 3 3 3	37	Unsettled squally weather.
12	Same place	2 413 414 416 418	28.692 727.0 727.2 727.0 726.9	46 8 8 8 8	46	More settled.
4 P.M.	Same place	2 413 414 416 418	28.626 726.7 726.7 726.6 726.3	45 7½ 7½ 7½ 7½	46	Calm.
October 5, 8 A.M.	Grand Falls	A. No. 1 411	29.494 29.512 746.7	45½ 45 7½	45½	Wind south-west.
12		A. No. 1 411	29.454 29.468 746.9	53½ 53 12	55	Wind south.
4 P.M.		A. No. 1 411	29.384 29.402 746.2	64 63½ 18½	64½	Wind south-south-west.
4 P.M.	At five feet above station 1,977, p. 37½	2 413 414 416 418	722.9 723.2 722.9 723.5	44 6 6 6	43	Weather — raining very heavily. No. 1, which came up with the others too unsettled to register.
October 6, 8 A.M.	Grand Falls	A. No. 1 411	29.396 29.412 746.1	49½ 49½ 10	49½	Wind south-west; rain.
12		A. No. 1 411	29.426 29.440 745.4	49½ 49½ 10	50	Wind north-west; clearing.
4 P.M.		A. No. 1 411	29.450 29.462 745.9	54 53½ 12½	55½	Wind south-west.
8 A.M.	At same station as last evening.	2 413 414 416 418	28.450 721.9 722.4 722.1 722.3	39 3½ 3½ 3½ 3½	38½	Rainy bad weather.
4 P.M.	On Beaver Stream, at due north line.	413 414 416 418	731.4 731.5 731.4 731.8	9 9 9 9	47	
October 7, 8 A.M.	Grand Falls	A. No. 1 411	29.646 29.650 750.3	37½ 36½ 3	37½	Wind north-west; frost.

Barometric Observations.—Continued.

Date and Time.	Station.	Baz.	Height.	Th. A.	Th. D.	Remarks.
1840 October 7, 12	Grand Falls	A. No. 1 411	29.724 29.724 752.3	44 43½ 7	44	Wind north-west.
4 P.M.		A. No. 1 411	29.744 29.744 752.5	48½ 48 9½	48½	Wind north-west.
8 A.M.	Camp on Beaver Stream, same as last evening.	413 414 416 418	734.8 735.2 734.8 734.7	—½ —½ —½ —½	32½	Hard frost.
12	Same place	413 414 416 418	737.8 738. 738.5 737.9	8 8 8 8	40	
4 P.M.		..	..	..	..	Arrived too late from exploring.
October 8, 8 A.M.	Grand Falls	A. No. 1 411	29.786 29.790 753.9	33 31 1	34	Wind north-west; frost.
12		A. No. 1 411	29.730 29.740 754.9	56 55 13½	56½	Wind south-east.
4 P.M.		A. No. 1 411	29.630 29.640 752.9	60 59½ 15½	60	Wind south-east and south-west.
8 A.M.	Same station as last evening	413 414 416 418	739.2 739.3 739.0 739.0	—1½ —1½ —1½ —1½	29	
October 9, 8 A.M.	Grand Falls	A. No. 1 411	29.772 29.774 755.1	36 35½ 2	35	Wind north-west; frost.
12		A. No. 1 411	29.810 29.812 755.8	40 40 4½	43	Wind north-west; strong wind.
4 P.M.		A. No. 1 411	29.784 29.786 755.7	43 43 4½	43	Wind north-west; blowing hard.
October 10, 8 A.M.	Grand Falls	A. No. 1 411	29.828 29.830 757.0	34 34 1½	34	Wind north-west; hard frost.
12		A. No. 1 411	29.760 29.768 755.9	40 39½ 4½	40	Wind north-west.
4 P.M.		A. No. 1 411	29.696 29.706 754.4	43½ 43½ 6½	44	Wind north-west.
October 11, 8 A.M.	Grand Falls	A. No. 1 411	29.348 29.364 745.5	32 31 0	32	Wind south-west; hard frost.

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840						
October 11,						
12	Grand Falls	A. 29.242 No. 1 29.262 411 742.9	39½ 39½ 4½	39½	39½	Wind south-west; misty.
4 P.M.		A. 29.064 No. 1 29.088 411 738.4	42 41½ 5½	42	42	Wind south; dark mist.
8 A.M.	Five feet above the Beaver Stream, at about six miles below north line.	413 730.3 414 730.2 416 730.3 418 730.2	—1 —1 —1 —1	30		
12	About nine miles below the north line, at the head of the Lake forming the mouth of Beaver Stream, five feet above water	413 729.1 414 729.0 416 729.0 418 729.2	5 5 5 5	36		
October 12,						
8 A.M.	Grand Falls	A. 28.844 No. 1 28.870 411 731.3	46 46 7½	45½	45½	Wind north-west; heavy rain.
12		A. 28.900 No. 1 28.928 411 732.2	44½ 44½ 7	44½	44½	Wind north-west; clearing.
4 P.M.		A. 28.964 No. 1 28.990 411 733.6	44 44 6½	44	44	Wind north-west; cloudy.
8 A.M.	About one mile on Lake Metis, twenty feet above water.	413 719.6 414 719.9 416 719.8 418 719.7	4 4 4 4	38		
12	About two miles below the Lake, five feet above water.	413 722.6 414 722.5 416 722.3 418 722.5	4½ 4½ 4 4½	29		
October 13,						
8 A.M.	Grand Falls	A. 29.186 No. 1 29.202 411 738.9	37½ 37 3	37	37	Wind north-west; rainy.
12		A. 29.206 No. 1 29.224 411 739.6	41 41 5½	41½	41½	Wind north-west; snow.
4 P.M.		A. 29.232 No. 1 29.246 411 741.0	42½ 42 6	42½	42½	Wind north-west.
8 A.M.	Camp half-way down second Lake, ten feet above water.	413 730.7 414 730.8 416 730.6 418 730.4	2½ 2½ 2½ 2½	37		
12	Five miles lower down the stream, five feet above the water.	413 732.3 414 732.4 416 732.4 418 732.4	5½ 5½ 5½ 5½	38		

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 October 14, 8 A.M.	Grand Falls	A. 29·070 No. 1 29·090 411 738·5	37 36½ 2½	37		Wind south; slight frost.
12		A. 29·028 No. 1 29·046 411 737·4	44½ 43½ 6½	44½		Wind south-south-west; rain.
4 P.M.		A. 29·102 No. 1 29·124 411 738·1	50 50 10½	50½		Wind west; rain.
8 A.M.	On Metis, at the end of first portage, eight feet above water, below Small Falls.	413 732·6 414 732·4 416 732·4 418 732·2	2 2 2 2	35		Portage about one mile and a quarter.
12	On banks of the Metis, about six miles below last camp, five feet above water.	413 735·5 414 735·6 416 735·5 418 735·9	6 6 6 6	42		
4 P.M.	At the Fourche of the River Metis; direction south-south-east; five feet above water.	413 742·2 414 742·4 416 742·2 418 742·2	5 5 5 5	40½		
October 15, 8 A.M.	Grand Falls	A. 29·352 No. 1 29·358 411 742·4	35½ 35 2½	35½		Wind south-west; hard frost.
12		A. 29·386 No. 1 29·400 411 743·1	42 41½ 5½	42		Wind north-west.
4 P.M.		A. 29·424 No. 1 29·438 411 744·1	42 42 5½	41½		Wind south-west.
8 A.M.	Camp on banks of Metis, about seven miles from Fourche, five feet above water.	413 750·8 414 750·9 416 750·7 418 751·1	1½ 1½ 1½ 1½	34		
12	About one mile above the Grand Portage, twelve feet above water.	413 753·1 414 753·1 416 752·9 418 753·3	6 6 6 6	42		
October 16, 8 A.M.	Grand Falls	A. 29·568 No. 1 29·580 411 749·0	29 28 —2	28½		Wind north-west; hard frost.
12	At ten miles above the Grand Falls on River St. John.	A. 29·774 No. 1 29·790 411 756·7	43½ 43½ 6	46		Wind north-west; some snow. Barometer three feet above the level of water.
4 P.M.	The Observations at the Grand Falls were discontinued to-day at 8 A.M.					

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 October 16, 8 A.M.	Mouth of Metis River: high-water mark.	413 414 416 418	767.3 767.2 767.0 767.3	2 2 2 2	34	
12		413 414 416 418	768.9 768.9 768.7 769.0	5½ 5½ 5½ 5½	38½	
October 17, 8 A.M.	Twenty-one miles above the Grand Falls, on the River St. John.	A. No. 1 411	29.994 30.006 761.6	36½ 38 1½	33	Wind north-east.
12	Grand Island.	A. No. 1 411	30.018 30.032 762.0	43½ 40 5½	38½	
8 A.M.	Mouth of River Rimouaky, high-water mark on St. Lawrence.	413 414 416 418	774.1 774.4 774.2 774.4	1 1 1 1	1 1 1 1	
October 18, 8 A.M.	At the foot of Little Falls on the River St. John, or mouth of the Mada- waska.	A. No. 1 411	29.986 30.006 761.5	29 27½ —½	31½	Wind north-west; hard frost.
12	North end of Barnard Island, eight miles above Little Falls.	A. No. 1 411	29.952 29.974 760.9	57½ 52½ 12	54	
8 A.M.	Ten feet above high-water mark, Rivière de la pointe au Mé, one league from Trois Pistoles.	414 416	773.6 773.6	—1 —1	—2 —2	
12	Mouth de la Rivière de la pointe à la Loupe, four feet above high-water mark.	413 418	774.1 774.1	7 7	4	
October 19, 8 A.M.	Entrance of Lake Temis- quata.	A. No. 1 411	29.730 29.740 754.1	37 38 1½	34	Wind west-south- west; hard frost. Two feet above water.
12	North end rock in Lake Temisquata, nine miles below head of Lake.	A. No. 1 411	29.638 29.650 752.8	49 48½ 9½	48½	Wind south. Two feet above water.
4 P.M.	At barracks on Temisquata Lake.	A. No. 1 411	29.562 29.584 750.9	51½ 51½ 10½	51½	Wind south-west. Two feet above water.
8 A.M.	High tide. River du Loup.	413 414 416 418	767.3 767.1 766.9 767.6	7 7 6½ 6½	5	

Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.	Th. D.	Remarks.
1840 October 19, 12	High tide. River du Loup.	413 414 416 416	765·2 765·2 765·0	10 10 10	9	Broken.
October 20, 8 A.M.	Barracks on Lake Temis- quata, as yesterday.	A. No. 1 411	29·414 29·444 747·2	64½ 63½ 18	63	Wind west-south- west.
12	Opposite thirty-three mile post, on portage.	A. No. 1 411	28·828 28·854 732·3	56½ 57½ 14	56	Wind west.
4 P.M.	Top of Loon Mountain, on portage, within 300 yards of twenty-nine mile post.	A. No. 1 411	28·398 28·414 721·2	50½ 51 10½	50½	
8 A.M.	Same place as yesterday, at Du Loup.	413 414 416	759·2 759·5 759·1	13 13½ 12	12 12 12	
4 P.M.	Same place.....	413 414 416	760·9 760·9 760·9	10½ 10½ 10½	10 10 10	
October 21, 8 A.M.	100 yards north of twenty mile post, on portage one and half feet above water.	A. No. 1 411	28·978 28·990 735·7	40 40 3½	36½	Wind north-west. On small stream.
12	At the bridge over the St. Francis, level with water.	A. No. 1 411	29·152 29·174 740·4	52½ 54 11	51½	Wind west-north- west.
8 A.M.	High water mark. Rivière du Loup, as yesterday.	413 414 416	764·6 764·5 764·5	7½ 7½ 7½	7 7 7	
12	Same place.....	413 414 416	764·6 764·5 764·3	11½ 11½ 11½	10½ 10½ 10½	
4 P.M.	Same place.....	413 414 416	762·6 762·7 762·5	11½ 11½ 11	10 10 10	

Abstract of Barometric Observations made at Beaver Stream and various Stations on the Metis, to its Mouth in the St. Lawrence, above high tide at Chapel E.r, in the River St. John.

At Beaver Stream	1,012 feet.
Six miles below North Line	954
Nine miles below North Line	902
First Lake Metis	847
Two miles below Lake	820
Second Lake Metis	779
Three miles below Lake	743
Seventeen miles below Lake, at the Portage.	615
Six miles below Portage	455
Fourche to the eastward	325
Seven miles below Fourche	210
One mile above the Falls	137
Mouth of the Metis River	-130

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Captain Broughton and Mr. J. D. Featherstonhaugh to the Earl of Aberdeen.

My Lord,

London, February 11, 1842.

WE have the honour to report, for your Lordship's information, that in pursuance of the instructions dated 3rd of May, 1841, received from Viscount Palmerston, we proceeded to make an exploration of the country named in those instructions; the result of which we now submit to your Lordship, accompanied by a general plan of the country and a section of the line passed over, together with a registry of the barometric observations taken along its entire course.

On the 21st of June, we proceeded from Quebec to the extreme western point on Lake Memphramagog, when having ascertained that it was bounded on its western side by a chain of lofty mountains, we passed as near as practicable along the 45° north lat. to its intersection with the Connecticut River. This portion of the country is mountainous and broken, and is deeply indented by streams.

On ascending the Connecticut from the 45° north lat. to its head, we crossed its tributaries on the western side, including Hall's Stream, Indian Stream, and Perry's Stream; these being the three largest which occur, but which are all inferior in volume to the main stream or Connecticut.*

From the head of the Connecticut (which is a small lake) the country becomes extremely mountainous; the general direction of the chain north-easterly, averaging at least 2,500 feet above the tide water in the St. Lawrence at Quebec, and presenting a visible mountainous elevation of about 800 feet above the general level of the country as far as the monument on the Kennebec road.

On arriving at the Kennebec road, we visited the highest summit of the Bald Mountain Ridge, elevated about 3,624 feet above the tide water at Quebec. This is a spur breaking off from the main Ridge about six miles south-west of the monument on the Kennebec road, which, pursuing an easterly direction, divides the branches of the Moose River (a tributary of the Kennebec) from the Penobscot waters.

An extensive view of the country was obtained from this mountain, with which the result of our subsequent explorations fully agreed: confirming the fact, *that the chain of Highlands from the Connecticut River, on reaching the sources of Metjarmette, continues on in a north-easterly direction, crosses the northerly branches of the Penobscot, and then becomes identified with the Keeaquagum mountains, south of the St. John*: whilst the country between the Metjarmette and the Etchemin presents the appearance of an extensive plain, bounded on the north, by a chain of lofty mountains, stretching far to the west, and occupying the line of Highlands which is the continuation of that line claimed by the United States.

From the monument on the Kennebec road to the Metjarmette the Range continues more northerly, and is of a somewhat lower elevation, averaging about 2,200 feet above the tide water in the St. Lawrence at Quebec, and presenting a visible elevation of about 600 feet above the general level of the country.

The chain of mountains continues as stated above, in the same north-easterly direction, broken through in many places by small branches of the Penobscot, until it reaches the southern sources of the St. John, where, dividing them from the Penobscot waters, it becomes identified with the Keeaquagum mountains, as laid down upon Map A accompanying the Report laid before Parliament in 1840.

* No doubt can possibly exist to any one who has travelled this portion of the country, as to neither of the above Tributaries being the main river Connecticut, as has been asserted.

On leaving this continuous chain, at the heads of the Metjarmette, to cross the plain to Lake Etchemin, which lies nearly due north from thence, the country assumes a totally different character, and may be represented in general terms as a flat morass; for the highland features cease altogether, and no chain or ridge is any longer observable to break its flat character. It is true, that an isolated mound here and there occurs, and that, like many other table-lands, it is an elevated flat; Lake Etchemin, which is upon its extreme edge, being about 1,248 feet above high tide in the St. Lawrence at Quebec; but many parts of the plain are lower than Lake Etchemin itself, and for miles around, nothing is to be seen but a country of similar appearance.

This portion of the country was twice explored on different lines, and on both occasions we came to the same result, viz: *That this is an extensive plain about twenty-five miles in breadth, intervening and cutting off the Highlands claimed by the United States of America, from any connection with the Range extending from the heads of the Connecticut to the heads of the Metjarmette*, these Highlands being, however, represented on the American map of Mr. Burnham as existing and crossing this plain between these points.

In a north-western direction from Lake Etchemin, and distant about five miles, a lofty Range, which, as has been before stated, is the continuation of the line claimed by the United States, crosses the River Etchemin and the road to Quebec, and continues to the south-westward; whilst the same chain running from Lake Etchemin in a north-easterly direction, divides the waters of the Du Sud from some of the western sources of the St. John, until at length losing, with some abruptness, its lofty character, it gradually ceases altogether before it reaches Black River, and an extensive swamp of spruce trees commences, which extends for about twelve miles, and in which the sources of Black River and the River Ouëlle take their rise.

In thus briefly noticing the nature of the country we passed over, it has been our desire not to trespass too long on your Lordship's time; and we beg to refer to the accompanying Map and Section, which we trust will furnish every desired information. It only remains, therefore, to state, that from the circumstance of its having been an unusually dry summer, the streams were very often dried up at their sources, which exposed our party to such privations that our Indians and guides repeatedly deserted us; this occasioned so much delay, that on arriving at the River Ouëlle, the season was too far advanced to permit us to proceed any further; we, therefore, returned to Quebec to make the necessary arrangements for returning to England.

We have, &c.,

(Signed)

W. E. DELVES BROUGHTON,
Royal Engineers.

(Signed)

J. D. FEATHERSTONHAUGH.

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Explanation accompanying the Barometric Registers.

A prefatory notice of the mode of conducting the annexed barometrical observations, and of the construction of the barometers used in them, is deemed advisable.

The barometers which were selected for the summer's operations, were sixteen in number, thirteen of them made by M. Buntén, Paris, of the syphon construction—the zero being in the middle, and reading with verniers from it, both up and down, the sum of these readings being the height of the mercurial column in millimètres, tenths and (by estimation) hundredths.

The other barometers were graduated in English inches and tenths, reading with a vernier to two thousandths of an inch. One of Troughton and Simms's construction (A), with a guage or zero point, to which the surface of the mercury in the cistern is to be carefully adjusted by a screw beneath, before an observation can be made. And two made by Newman (No. 1 and 2) without a guage point, for which a correction by computation is necessary, as also for capillarity.

After several comparisons of all the instruments, it was deemed advisable to take with us only a certain number of the syphon barometers, and to leave the rest in the observatories at Quebec and Lake Etchemin. Therefore, three of the syphon barometers were selected to be sent to Lake Etchemin, four to Quebec, and the remainder, six in number, were reserved to accompany the expedition through the woods. The large mountain barometer of Troughton and Simms, with one of Newman's were also left at Quebec, whilst the other of Newman's was sent to Lake Etchemin; but both of these last barometers had sustained so much injury during the previous year, that no dependence could be placed upon their indications.

The syphon barometers were divided into sets in such a manner that the means of each set should harmonize as much as possible, and thus avoid the necessity of making any correction for individual error. Whenever opportunity offered, these sets were again compared with each other, and, if required, such alterations were made as to correct any difference in the means of each set.

It was found that such a discrepancy occasionally existed between the barometer (A) of Troughton and the syphons, which could not be charged to the latter, on account of individual agreement, that it was also thought most advisable to reject its registry as being very often erroneous, probably on account of the great precision and nicety required in adjusting the zero, and possibly owing to some damage it might have received during the two previous years.

The registry, therefore, is given in millimètres and tenths, and the temperatures in degrees both of Fahrenheit and centigrade thermometers.

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Comparison of Barometers at Quebec, May 23rd, 1841.

Th. D. F.	Th. A. C.	Bar.	Height.	Corrected for Temp.	
59	15 $\frac{1}{2}$	411	762·65	762·67	$3,049·86 \div 4 = 762·46.$
	15 $\frac{1}{2}$	413	762·50	762·52	
	15 $\frac{1}{2}$	414	762·65	762·67	
	16	416	762·00	762·00	
	15 $\frac{1}{2}$	377	763·00	763·05	$2,988·30 \div 3 = 762·77.$
	15 $\frac{1}{2}$	418	762·40	762·45	
	16	429	762·90	762·90	
	15 $\frac{1}{2}$	456	761·90	761·92	
	16 $\frac{1}{2}$	457	763·00	762·92	$4,576·54 \div 6 = 762·75.$
	15 $\frac{1}{2}$	458	763·00	763·02	
	15 $\frac{1}{2}$	459	762·65	762·68	
	16	460	763·10	763·10	
	16	461	762·90	762·90	

Comparison of Barometers at Quebec, May 25th, 1841.

Th. D. F.	Th. A. C.	Bar.	Height.	Corrected for Temp.	
59	16	411	756·20	756·20	$3,024·68 \div 4 = 756·17.$
	16 $\frac{1}{2}$	413	756·30	756·28	
	16	414	756·20	756·20	
	16	416	756·00	756·00	
	15 $\frac{1}{2}$	377	756·30	756·32	$2,268·34 \div 3 = 756·11.$
	16 $\frac{1}{2}$	418	756·00	755·95	
	16 $\frac{1}{2}$	429	756·10	756·07	
	16 $\frac{1}{2}$	456	755·30	755·25	
	16 $\frac{1}{2}$	457	756·30	756·25	$4,536·25 \div 6 = 756·04.$
	16 $\frac{1}{2}$	458	756·30	756·25	
	16 $\frac{1}{2}$	459	755·90	755·82	
	16 $\frac{1}{2}$	460	756·40	756·38	
	16	461	756·30	756·30	

Comparison of Barometers at Quebec, May 27th, 1841.

Th. D. F.	Th. A. C.	Bar.	Height.	Corrected for Temp.	
61	18 $\frac{1}{2}$	411	758·8	758·72	$3,035·91 \div 4 = 758·98.$
	18 $\frac{1}{2}$	413	758·6	758·52	
	18 $\frac{1}{2}$	414	759·5	759·42	
	18 $\frac{1}{2}$	416	759·3	759·25	
	18 $\frac{1}{2}$	377	758·9	758·82	$2,276·25 \div 3 = 758·75.$
	18 $\frac{1}{2}$	418	758·9	758·85	
	18 $\frac{1}{2}$	429	758·6	758·58	
	18 $\frac{1}{2}$	456	758·5	758·45	
	18 $\frac{1}{2}$	457	759·8	759·75	$4,555·30 \div 6 = 759·21.$
	18 $\frac{1}{2}$	458	759·9	759·85	
	18	459	758·9	758·90	
	18	460	759·3	759·30	
	18 $\frac{1}{2}$	461	759·1	759·05	

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Record of Barometric Observations.—*Continued.*

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 June 22, 12	Lake Etchemin	377	731.0	72	22	73		Wind west.
		418						
		429						
	Baie Le Fèvre	456	763.7	74	23½	74	23½	Wind west.
		457						
		458						
		459						
		460						
		461						
	2 P.M. Custom-house	411	762.6	75	24	80½		Wind north-north-west.
		413						
		414						
		416						
	Lake Etchemin	377	730.6	77½	25½	79		Wind west.
		418						
		429						
	St. Zephyra	456	760.0	78	25½	76	24½	
		457						
		458						
		459						
		460						
		461						
	4 P.M. Custom-house	411	762.0	77	25	79½		Wind west.
		413						
		414						
		416						
	Lake Etchemin	377	730.5	83	28½	83		Wind west.
		418						
		429						
	Wendover	456	756.6	78	25½	77	25	Wind west.
		457						
		458						
		459						
		460						
		461						
June 23, 8 A.M.	Custom-house	411	759.6	70	21	68½		Wind north-east ; raining.
		413						
		414						
		416						
	Lake Etchemin	377	727.9	66	19	67		Wind south.
		418						
		429						
	Wickham	456	750.0	71	21½	70	21	
		457						
		458						
		459						
		460						
		461						
	10 A.M. Custom-house	411	759.6	70½	21½	68½		Wind north-east ; cloudy.
		413						
		414						
		416						
	Lake Etchemin	377	727.9	68	20	68½		Wind south-west.
		418						
		429						

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 June 23, 10 A.M.	Durham	456	744.5	75	24	74	23½	Wind south-west.
		457						
		458						
		459						
		460						
		461						
	2 P.M. Custom-house	411	759.4	74½	23½	75½		Wind east; cloudy.
		413						
		414						
		416						
	Lake Etchemin	377	727.8	74	23½	74½		Wind south-west.
		418						
		429						
	Melbourne.	456	750.3	78	25½	73½	23	Wind south-west.
		457						
		458						
		459						
		460						
		461						
June 24, 2 P.M.	Custom-house	411	765.7	62	16½	62½		Wind north-east.
		413						
		414						
		416						
	Lake Etchemin	377	732.0	64	17½	64		Wind north-east.
		418						
		429						
	Sherbrooke, 20 feet above the river St. Francis.	456	752.3	69	20½	67	19½	
		457						
		458						
		459						
		460						
		461						
June 25, 12	Custom-house	411	765.1	59	15	58½		Wind north-east.
		413						
		414						
		416						
	Lake Etchemin	377	731.9	59½	15½	60		Wind north-east.
		418						
		429						
	Sherbrooke, same place.	456	752.2	71	22	72	22½	
		457						
		458						
		459						
		460						
		461						
4 P.M.	Custom-house	411	764.4	60	15½	59½		Wind north-east; raining.
		413						
		414						
		416						
	Lake Etchemin	377	731.2	61	16	62		Wind north-east.
		418						
		429						

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	P.	C.	
1841 June 25, 4 P.M.	Sherbrooke, same place.	456 457 458 459 460 461	751.8	73½	23	72½	22½	Wind north, fair.
June 26, 4 P.M.	Custom-house.	411 413 414 416	760.2	61½	16½	60½		Wind north-east, raining.
	Lake Etchemin.	377 418 429	727.6	65½	18½	66½		Wind south-east, raining.
	Compton.	456 457 458 459 460 461	739.6	73½	23	72½	22	Wind south, raining.
June 27, 4 P.M.	Custom-house.	411 413 414 416	760.1	73½	23	75½		Wind south-west.
	Lake Etchemin.	377 418 429	728.6	75	24	76		Wind north-west.
	Stanstead.	456 457 458 459 460 461	733.7	75½	24½	78	25½	
June 28, 8 A.M.	Custom-house.	411 413 414 416	758.8	65½	18½	64½		Wind east, rain.
	Lake Etchemin.	377 418 429	726.0	64	17½	64		Wind north-west, rain.
	Stanstead, same place	456 457 458 459 460 461	730.7	69	20½	67	19½	Wind south-west.
	Custom-house.	411 413 414 416	757.4	66	19	68½		Wind north-east.
	Lake Etchemin.	377 418 429	724.7	68½	20½	66½		Wind north-east.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.	
				F.	C.	F.	C.		
1841 June 28, 4 P.M.	Stanstead, same place	456 457 458 459 460 461	731.2	67½	19½	66	19	Threatening rain.	
June 29, 8 A.M.	Custom-house.	411 413 414 416	757.5	70½	21½	69½		Wind south-west.	
	Lake Etchemin.	377 418 429	725.8	67	19½	67		Wind north-west.	
	Stanstead, same place	456 457 458 459 460 461	733.1	67½	19½	67	19½	Wind south-west, fine.	
	2 P.M.	Stanstead, same place	459 460 461	732.2	78	25½	78	25½	Wind south-west.
	Lake Memphramagog.	456 457 458	742.0	79½	26½	79½	26½	Wind south-west.	
	4 P.M.	Custom-house.	411 413 414 416	756.2	71½	22	71½		Wind south-west, rain.
		Lake Etchemin.	377 418 429	724.3	72	22½	72		Wind west, rain.
	June 30, 8 A.M.	Custom-house.	411 413 414 416	756.3	73½	23	71½		Wind south-east.
		Lake Etchemin.	377 418 429	724.3	65	18½	65		Wind north-west.
		Stanstead	456 457 458 459 460 461	732.0	71½	22	70	21	Wind north-west. Heavy rain all night.
4 P.M.		Custom-house.	411 413 414 416	753.7	76	24½	74½		Wind south-west.
		Lake Etchemin.	377 418 429	722.6	71½	22	72		Wind west.

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Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 July 4, 8 A.M.	Same place, Leech stream.	456 457 458 459 461	736.2	56½	13½	53	11½	
July 6, 8 A.M.	Custom-house.	411 413 414 416	756.1	65	18½	65½		Wind north-east.
	Lake Etchemin	377 418 429	723.5	59	15	61		Wind south-west.
	Second or Middle Lake of Connecticut River, 5 feet above water.	456 457 458 459 461	709.8	61½	16½	60	15½	Wind south-west.
July 7, 8 A.M.	Custom-house.	411 413 414 416	757.4	73½	23	72		Wind south-west.
	Lake Etchemin	377 418 429	724.4	59	15	60		Wind west.
	Connecticut River, between first and second lakes.	456 457 458 459 461	708.1	59	15	56½	13½	
July 8, 8 A.M.	Custom-house.	411 413 414 416	759.7	73½	23	73		Wind south-west.
	Lake Etchemin	377 418 429	726.3	57	14	59½		Wind north-west.
	First Lake Connecticut.		703.8	56½	13	57	14	
12	Custom-house.	411 413 414 416	759.0	73½	23	72½		Wind north-west.
	Lake Etchemin	377 418 429	726.5	66	19	66½		Wind west.
	Top of ridge dividing the Connecticut and Margalloway.	456 457 458 459 461	684.8	63	17½	61½	16½	
4 P.M.	Lake Etchemin	377 418 429	726.5	68	20	68½		Wind west.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 July 8, 4 P.M.	Ridge dividing the Connecticut and St. Francis waters.	456 457 458 459 461	693.0	64½	18	69	16½	Wind west.
July 9, 8 A.M. 4 P.M.	Custom-house.....	411 413 414 416	759.1	68	19	66½		Wind west, fine.
	Lake Etchemin.....	377 418 429	727.7	57½	14½	57½		Wind west.
	Swamp sources of St. Francis, north of 1st lake Connecticut.	456 458 457 459 461	714.5	59	15	55½	13	
	Custom-house.....	411 413 414 415	758.0	65½	18½	66½		Wind south, raining.
	Lake Etchemin.....	377 418 429	726.7	57	14	58½		Wind south-west, raining.
	The same swamp...	456 457 458 459 461	717.9	64½	18	61½	16½	
	Custom-house.....	411 413 414 416	752.9	65½	18½	66		Wind south-west, cloudy.
	Lake Etchemin.....	377 418 429	719.8	55½	13	56		Wind south-west, raining.
	Top Ben D'Urbain ..	456 457 458 459 461	686.6	51½	10½	51	10½	Wind south-west, raining.
	Custom-house.....	411 413 414 416	753.2	67	19½	67		Wind west, rain.
	Lake Etchemin.....	377 418 429	720.5	57½	14½	58		Wind south-west, rain.
	Ben D'Urbain same place as noon	456 457 458 459 461	687.6	52	11	52	11	Wind south-west, rain.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 July 12, 4 P.M.	Custom-house	411	757.0	70½	21½	70		Wind north-west, lowering.
		413						
		414						
		416						
	Lake Etchemin	377	724.2	62¾	17	63		Wind north-west.
		418						
		429						
		429						
	Arnold's River	456	706.7	59	15	58	14½	
		457						
		458						
		459						
		461						
		461						
		461						
		461						
July 13, 10 A.M.	Custom-house	411	758.2	73	22¾	72		Wind south-west, clear.
		413						
		414						
		416						
	Lake Etchemin	377	725.1	64¾	18	66½		Wind west.
		418						
		429						
		429						
	Top of Mount Gosford.	456	665.2	61	16	61½	16½	
		457						
		458						
		459						
		461						
		461						
		461						
		461						
	12 Lake Etchemin	377	725.7	70	21	69¾		Wind west.
		418						
		429						
		429						
		456	694.2	65	18½	65	18½	
		457						
		458						
		459						
		461						
		461						
		461						
		461						
	5 P.M. Lake Etchemin	377	726.5	74½	23¾	76	24½	Wind west.
		418						
		429						
		429						
		456	691.7	67	19½	68	20	
		457						
		458						
		459						
		461						
		461						
		461						
		461						
July 14, 8 A.M.	Custom-house	411	759.9	75½	24¾	73		Wind south-west, clear.
		413						
		414						
		416						
	Lake Etchemin	377	727.2	62	16¾	64		Wind west.
		418						
		429						
		429						
	Camp	456	704.7	61	16	61	16	Wind south-west, clear.
		457						
		458						
		459						
		461						
		461						
		461						
		461						

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 July 15, 10 A.M.	Lake Etchemin	411	723.9	70½	21½	71		Wind south-west.
		413						
		414						
		416						
	In swamp	456	723.7	71½	22	70½	21½	Wind west; showery.
		457						
		458						
		459						
July 16, 4 P.M.	Custom-house	411	762.1	75	23½	74		Wind south-west; clear.
		413						
		414						
		416						
	Lake Etchemin	377	729.4	70½	21½	71½		Wind north-west.
		418						
		429						
	Lake Macanamac . . .	456	728.0	71	21½	70½	21½	Wind south-west; fine.
		457						
		458						
		459						
July 17, 8 A.M.	Custom-house	411	765.8	70½	21½	71		Wind north-west; fine.
		413						
		414						
		416						
	Lake Etchemin	377	730.7		13	56		Wind south-west.
		418						
		429						
	Top of mountain . . .	456	696.3		13	56½		
		457						
		458						
		459						
10 A.M.	Lake Etchemin	377	731.5	64	18	66		Wind south-west.
		418						
		429						
	Summit of ridge . . .	456	690.8	61	16	61½	16½	
		457						
		458						
12	Lake Etchemin	377	731.7	68½	20½	69½		Wind south-west;
		418						
		429						
	Foot of ridge	456	714.6	68	20	67½	19½	
		457						
		458						
2½ P.M.	Lake Etchemin	377	731.7	71	21½	73		Wind south-west.
		418						
		429						

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 July 17, 2½ P.M.	Summit of ridge ..	456 457 458 459 461	696·0	69	20½	70	21	
4 P.M.	Lake Etchemin ..	377 418 429	731·7	75	24	77		Wind south-west.
	Small rivulet	456 457 458 459 461	716·8	67½	19½	67½	19½	
4½ P.M.	Lake Etchemin ..	—	731·7	75	24	77		Wind south-west.
	Highest point of hill	—	711·6	67	19½	67½	19½	
July 18, 10 A.M.	Custom-house. . .	411 413 414 416	764·9	73	22½	72½		Wind south-east; clear.
	Lake Etchemin ..	377 418 429	732·4	70	21	71		Wind south-east.
	Top of ridge	456 457 458 459 461	705·8	70	21	69	20½	Wind north-west; fine.
12	Lake Etchemin ..	377 418 429	732·3	76½	24½	73		Wind south-east.
	Small stream	456 457 458 459 461	715·0	75½	24	74½	23½	Wind south.
2 P.M.	Lake Etchemin ..	377 418 429	732·1	74½	23½	75½		Wind south-east.
	On ridge.	456 457 458 459 461	715·1	77	25	76½	24½	
4 P.M.	Custom-house. . .	411 413 414 416	764·0	77½	25½	75½		Wind north-west; clear.
	Lake Etchemin ..	377 418 429	731·9	79	26	80		Wind south-east; clear.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 July 18, 4 P.M.	Top of ridge . . .	456 457 458 459 461	709.9	72½	22½	73	22½	
July 19, 8 A.M.	Custom-house . .	411 413 414 416	763.6	74½	23½	72½		Wind south-west.
	Lake Etchemin . .	377 418 429	730.9	61	16	61½		Wind south-east.
	Small Lake, Kennebec Source . . .	456 457 458 459 461	722.8	62½	17	62½	17	
	10 A.M. Lake Etchemin . .	377 418 429	731.3	66	19	66		Wind south-east.
	Top of ridge . . .	456 457 458 459 461	713.2	68	20	69	20½	
	12 Lake Etchemin . .	377 418 429	731.6	70	21	70		Wind north-west.
	Cedar Swamp . . .	456 457 458 459 461	717.1	70½	21½	70½	21½	Wind north-west; fair.
	2 P.M. Lake Etchemin . .	377 418 429	731.7	70½	21½	72		Wind north-west.
	On small brook flowing into Chaudière.	456 457 458 459 461	722.6	69	20½	69	20½	Wind north-west.
	4 P.M. Custom-house . .	411 413 414 416	764.1	75½	24½	74		Wind north-west.
	Lake Etchemin . .	377 418 429	732.3	74½	23½	75		Wind north-west.
	Top of ridge . . .	456 457 458 459 461	705.4	69	20½	68	20	
	5½ P.M. Lake Etchemin . .	—	732.3	74½	23½	76		
	Top of ridge . . .	—	697.5	69	20½	69	20½	

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 July 20, 10 A.M.	Custom-house ..	411 413 414 416	770·4	74½	23½	74½		Wind south-west; fine.
	Lake Etchemin ..	377 418 429	737·3	69	20½	71		Wind west.
	Source Du Loup ..	456 457 458 459 461	719·7	70	21	69	20½	
12	Lake Etchemin ..	377 418 429	737·7	74½	23½	76		Wind west.
	Source Du Loup ..	456 457 458 459 461	723·9	74½	23½	74½	23½	
2 P.M.	Lake Etchemin ..	377 418 429	737·5	75½	24½	77		Wind west.
	Top of ridge	456 457 458 459 461	707·9	73	22½	71	21½	Wind west.
4 P.M.	Lake Etchemin ..	377 418 429	737·3	75	24	76		Wind west.
	Foot of ridge	456 457 458 459	716·8	72	22½	71½	22	
July 21, 10 A.M.	Custom-house ..	411 413 414 416	769·0	74	23½	74		Wind south-south- west; cloudy.
	Lake Etchemin ..	377 418 429	736·7	69½	20½	69½		Wind west.
	Top of ridge	456 457 458 459	707·5	73	24	72½	22½	
12	Lake Etchemin ..	377 418 429	736·3	74½	23½	76		Wind west.
	Small brook	456 457 458 459	724·1	79½	26½	79½	26½	

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Aug. 2, 12	Lake Etchemin ..	377 418 429	734.4	75	24	76		Wind south-west.
Aug. 3, 12	Custom-house. . .	411 413 414 416	766.3	79	26	77		Wind west.
	Lake Etchemin ..	377 418 429	734.8	75	24	76		Wind west.
Aug. 4, 4 P.M.	Custom-house ..	411 413 414 416	761.2	78	25½	77		Wind south-west.
	Lake Etchemin ..	377 418 429	730.1	72½	22½	73		Wind west.
Aug. 5, 4 P.M.	Custom-house ..	411 413 414 416	761.4	73½	23	73		Wind west.
	Lake Etchemin ..	377 418 429	729.6	70	21¼	70		Wind west.
Aug. 6, 12	Custom-house ..	411 413 414 416	762.6	71¾	22	71¼		Wind north-west.
	Lake Etchemin ..	377 418 429	730.1	67¼	19½	68		Wind east.
Aug. 7, 4 P.M.	Custom-house ..	411 413 414 416	762.3	78	25½	76½	24¾	Wind south-west.
	Lake Etchemin ..	377 418 429	730.5	74½	23½	77		Wind south-east.
	St. Joseph's ..	456 457 458 459	751.0	77	25	77½		
Aug. 8, 4 P.M.	Custom-house ..	411 413 414 416	763.2	79	26½	78	25½	Wind south-west.
	Lake Etchemin ..	377 418 429	731.5	77	26	78		Wind south.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Aug. 10, 10 A.M.	Custom-house ..	411 413 414 416	765.0	71½	22	70½	21½	Wind south-west.
	Lake Etchemin ..	377 418 429	732.0	59	15	59		Wind west; cloudy.
	Monument on Ken- nebec Road, same as July 22, 2 P.M.	456 457 458 459	712.3 tube broken.	59	15	58		Wind north-west.
	Lake Etchemin ..	377 418 429	732.2	63	17½	63½		Wind west.
	Monument	456 457 458	712.0	63½	17½	64½		Wind south-west.
4 P.M.	Lake Etchemin ..	377 418 429	732.3	67	19½	68½		Wind west.
	Monument	456 457 459	712.1	69	20½	65½		
Aug. 11, 12	Custom-house ..	411 413 414 416	766.3	65	18½	64	18	Wind north-east.
	Lake Etchemin ..	377 418 429	733.2	65	18½	65½		Wind south-east; cloudy.
	Monument	—	712.8	74½	20½	74		Wind south-east.
	Lake Etchemin ..	377 418 429	732.7	68	20	68½		
	Monument	—	712.0	69	20½	70		
5 P.M.	Monument	—	711.3	63½	19½	67½		
	Meadow at foot of Bald Mountain, south side.	456 457 458 462	721.0	68	20	66½		
Aug. 12, 12	Custom-house ..	411 413 414 416	761.8	73½	22	72½	22½	Wind west.
	Lake Etchemin ..	377 418 429	730.3	64	17½	65		Wind west.
	Monument	—	709.8	65		69		Fine.
	Bald Mountain ..	456 457 458	671.0	61½	16½	62½		Wind north-west.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Aug. 12, 2 P.M.	Lake Etchemin ..	377 418 429	729.8	68	20	69		Wind west; cloudy.
	Monument	—	709.5	70½	21½	69		
	Bald Mountain ..	450 457 458	670.0	64½	18	65½		
Aug. 13, 8 A.M.	Custom-house ..	411 413 414 416	761.7	71½	22	66	19	Wind west; clear.
	Lake Etchemin ..	377 418 429	727.8	57	14	57½		Wind north-west.
	Monument	—	707.5	59	15	60		
Aug. 16, 10 A.M.	Custom-house ..	411 413 414 416	768.1	71	21½	71	21½	Wind south-west; clear.
	Lake Etchemin ..	377 418 429	736.5	63½	18½	66½		Wind south-west; clear.
	Monument	456 457 458	716.4	70½	21½	70½		Wind south.
	3 P.M. Lake Etchemin ..	—	735.0	77	25	80½	27	Wind west; fine.
	On ridge, 2 miles north-east from Monument.	—	702.7	78	25½	74		Wind west.
	4 P.M. Lake Etchemin ..	377 418 429	734.8	81	27½	82		Wind west; fine.
Aug. 17, 8 A.M.	Camp side of ridge, 3 miles from Monument.	456 457 458	707.1	75	24	75		Wind north-west; fine.
	Custom-house ..	411 413 414 416	764.3	75	24	74	23½	Wind west; fair.
	Lake Etchemin ..	377 418 429	732.4	65½	18½	66½		Wind west; fine.
	Same as last evening	456 457 458	704.9	65½	18½	66		Wind north-west; fine.
10 A.M.	Lake Etchemin ..	377 418 429	732.4	75	24	75½		Wind north-west; fair.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Aug. 17, 10 A.M.	On Lake, Du Loup water, 7 feet above.	456 457 458	710·7	75½	24½	72		Wind west.
11 A.M.	Lake Etchemin ..	—	732·4	76½	24½	77½	25½	Wind north-west; fine.
	Top of ridge, 1 mile north-east of Lake.	456 457 458	705·5	77½	25½	75		Wind west.
12	Lake Etchemin ..	477 418 429	732·3	78	25½	80		Wind west.
	Small brook	456 457 458	711·4	82	27½	79		
3 P.M.	Lake Etchemin ..	—	732·0	83	28½	83½	28½	
	Camp on small brook.	456 457 458	715·4	84	29	89½		
Aug. 18, 8 A.M.	Custom-house ..	411 413 414 416	761·9	74½	23½	74	23½	Wind west; heavy.
	Lake Etchemin ..	377 418 429	730·8	68	20	69		Wind south-west; heavy.
	Same as last evening	456 457 458	714·8	72½	22½	72½		Wind south-west; fine.
10 A.M.	Lake Etchemin	377 418 429	731·2	74½	23½	76		Wind south-west; fine.
	Half a mile east from Camp.	456 457 458	712·2	79½	26½	76½		Wind south-west.
11 A.M.	Lake Etchemin ..	—	731·0	77	25	80½	27	Wind south-west.
	One mile and a half east of Camp.	456 457 458	706·0	80	26½	79		
2 P.M.	Lake Etchemin ..	377 418 429	730·3	82½	28	84		Wind south-west.
	Top of ridge ..	456 457 458	707·4	86	29	82½		
3 P.M.	Lake Etchemin ..	—	730·2	83½	28½	84½		Wind south-west; cloudy.
	On top of ridge ..	456 457 458	701·1	85½	29½	81½		Wind south-west; cloudy.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Aug. 18, 4 P.M.	Lake Etchemin ..	377 418 429	730.1	84	29	85		Wind south-west.
	On Lake flowing into Portage River, 6 feet above water.	456 457 458	712.5	81	27½	79		Wind south-west.
Aug. 19, 8 A.M.	Custom-house	411 413 414 416	761.3	72½	22½	72½	22½	Wind south-east.
	Lake Etchemin ..	377 418 429	729.0	65½	18½	66½		Wind south-west; rain.
	Same as last night ..	456 457 458	712.2	66	19	66½		Wind south-west; rainy.
10 A.M.	Lake Etchemin ..	377 418 429	729.4	67½	19½	68		Wind west; rain.
	Top of ridge between the two Portage Lakes.	456 457 458	704.8	67½	19½	66½		Wind north-west; heavy.
11 A.M.	Lake Etchemin ..		729.5	67½	19½	68	20	
	New Portage Road		719.2	70	21	67½		
2 P.M.	Lake Etchemin ..	377 418 429	729.7	70½	21½	71		
	Portage Lake ..	456 457 458	720.4	68½	20½	68		
Aug. 20, 8 A.M.	Custom-house ..	411 413 414 416	765.0	74½	23½	71½	22	Wind south-west; clear.
	Lake Etchemin ..	377 418 429	731.2	60	15½	61		Wind north-west; clear.
	Portage Lake ..	456 457 458	722.5	66	19	67		Wind south-west; foggy.
Aug. 21, 4 P.M.	Custom-house ..	411 413 414 416	761.6	81½	27½	80½	27	Wind west; hazy.
	Lake Etchemin ..	377 418 422	730.7	79	26	80		Wind south-west; clear.
	Penobscot Lake ..	456 457 458	721.8	77	25	74½		

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Aug. 22,	Observations discontinued at Quebec . .							
4 P.M.	Lake Etchemin . .	377 418 429	730.5	63½	17½	63½		Wind south-east; cloudy.
	Portage Lake . .	456 457 458	721.0	60	15½	59½		
Aug. 23,	Lake Etchemin . .	377 418 429	733.5	52½	11½	53		Wind south-east; fine.
	Portage Lake . .	456 457 458	725.3	53½	12	53½		Wind east.
2 P.M.	Lake Etchemin . .	456 457 458	734.5	64½	18	64½		Wind east.
	Portage Lake . .	456 457 458	724.8	65½	18½	64½		Wind east.
Aug. 24, 10 A.M.	Lake Etchemin . .	377 418 429	737.3	57	14	59½		Wind west; fine.
	Highest point between Portage Lake and Penobscot Lake on Indian Portage.	456 457 458	726.5	60	15½	60		Wind west; clear.
12	Lake Etchemin . .	377 418 429	737.6	65½	18½	64½		Wind west; fine.
	Penobscot Lake . .	456 457 458	729.3	64½	18	66		Wind west; fine.
2 P.M.	Lake Etchemin . .	377 418 429	737.5	68	20	69		Wind south-west; clear.
	Top of small hill . .	456 457 458	719.3	69	20½	69		Wind south-west; clear.
Aug. 25, 8 A.M.	Lake Etchemin . .	377 418 429	736.2	46½	8	47		Foggy.
	Top of Hill . .	456 457 458	721.2	57½	14½	55		Wind south-west.
10 A.	Lake Etchemin . .	377 418 429	736.9	62	16½	61½		Wind west.
	Small brook, Met- jamette.	456 457 458	728.3	61½	16½	62		Wind west.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Aug. 25, 12	Lake Etchemin ..	377	736.5	66	19	68		Wind south-west.
		418						
		429						
	Swamp	556	727.9	73½	23	71		Wind south-west.
		457						
		458						
2 P.M.	Lake Etchemin ..	377	736.1	71	21½	72		Wind south-west.
		418						
		429						
	Top of dividing land	456	720.8	72½	22½	69½		
		457						
		458						
Aug. 26, 10 A.M.	Lake Etchemin ..	377	733.0	62½	17	63		Wind south-east.
		418						
		429						
	Division of south branch of the Met- jarmette and Pe- nobscot water.	456	711.4	66	19	67		
		457						
		458						
	12 Lake Etchemin ..	377	732.9	68	20	68½		Wind south-west; fine.
		418						
		429						
	On hill, same as 10 A.M.	456	711.1	72½	22½	73½		Wind south-west; fine.
		457						
		458						
	* St. Henri bridge, same as July 24, 8 A.M.	411	758.2	81½	27½	79	26	Wind south-west; fine.
		443						
		414						
	2 P.M. Lake Etchemin ..	377	732.5	71½	22	73		
		418						
		429						
	Two miles from St. Henri, on the road to Lake Etchemin.	411	755.8	83½	28½	81½	27½	
		413						
		414						
	4 P.M. Lake Etchemin ..	377	732.0	74½	23½	75		Wind south-west.
		418						
		429						
	Two miles from St. Henri, on the road to Lake Etchemin.	411	753.3	83½	28½	80½	27	
		413						
		414						
Aug. 27, 10 A.M.	Lake Etchemin ..	377	731.6	61	16	61½		
		418						
		429						
	Frampton Hill ..	411	736.5	70½	21½	70	21	
		413						
		414						
12	Lake Etchemin ..	377	731.9	68½	20½	69½		
		418						
		429						

* These are three of the Barometers which were in the Observatory at the Custom-house, Quebec.

Record of Barometric Observations.—Continued.

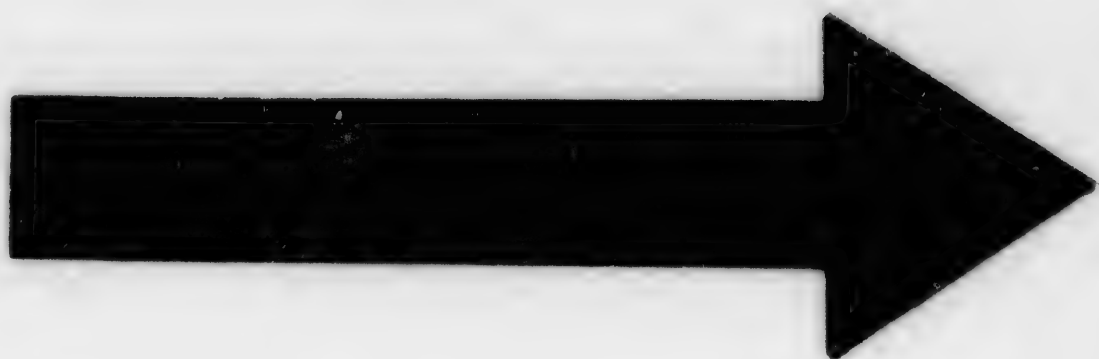
Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Aug. 27, 12	Metjarmette Brook .	456	720.9	70½	21½	69½		
		457						
		458						
	Wilson's house ..	411	741.1	76½	24½	77½	25½	
		413						
		414						
4 P.M.	Lake Etchemin ..	377	732.0	73	22½	73½		
		418						
		429						
	* Ridge between Metjarmette and Penobscot waters.	456	711.8	71½	22	69½		
		457						
		458						
Aug. 28, 10 A.M.	Lake Etchemin ..	377	735.7	67½	19½	67½	19	Wind south-east; fine.
		411						
		413						
	* Small lake, Penobscot.	414	720.7	73½	23	73		Wind south-east; fine.
		418						
		429						
2 P.M.	Lake Etchemin.	377	736.1	73½	23	74½		Wind south-east; clear.
		411						
		413						
	* Small stream of Penobscot.	414	729.8	80½	27	79½		Wind south-east; clear.
		418						
		429						
4 P.M.	Lake Etchemin ..	377	736.0	75½	24½		23	
		411						
		413						
	* On ridge dividing Penobscot waters, 300 feet below top.	414	723.5	79	26	73½		
		418						
		429						
Aug. 29, 10 A.M.	Lake Etchemin ..	377	737.1	69	20½	69		
		411						
		413						
	* Ridge between two branches of Penobscot.	414	725.3	71½	22	68½		
		418						
		429						

NOTE.—All the observations marked thus, (*) were made to the eastward of the Metjarmette waters.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Aug. 28. 1 P.M.	Lake Etchemin ..	377						Wind south-east.
		411						
		413	738.0	79½	22½	79½		
		414						
		418						
		429						
	Small branch of Penobscot.	456	730.3	73½	23	73½		
Aug. 30. 1 P.M.	Lake Etchemin ..	377						Wind east; raining.
		416	734.3	61	16	61		
		418						
		429						
	† Two and a quarter miles south-east of Lake Etchemin.	411	737.5	61	16	60		Wind east.
		413						
		414						
		414						
	3 P.M. Lake Etchemin	377						Wind east-south-east; raining.
		416	733.5	61½	16½	62		
		418						
		429						
	† Three and a half miles south of Lake Etchemin.	311	732.2	63½	17½	60		Wind east-south-east.
		413						
		414						
		414						
	4 P.M. Lake Etchemin ..	377						Wind east-south-east; raining.
		416	733.4	61	16	61½		
		418						
		429						
	† Four miles south, head of Lake Etchemin.	411	731.4	61	16	60½		Wind east-south-east; raining.
		413						
		414						
		414						
Aug. 31, 9 A.M.	Lake Etchemin ..	377						Wind east-south-east; raining.
		416	730.8	55½	13	56		
		418						
		429						
	† Small hill in swamp	411	726.6	56½	13½	54½		Wind east-south-east; raining.
		413						
		414						
		414						
	10 A.M. Lake Etchemin ..	377						Wind east-south-east; hazy.
		416	730.7	56½	13½	56½		
		418						
		429						
	* Swamp heading small branch of Penobscot.	456	727.9	59	15	54½		Raining.
		457						
		458						
		458						
	† Branch of La Famine.	411	730.4	59	15	55½		Raining.
		413						
		414						
		414						
11 A.M.	Lake Etchemin ..	377						Wind south-east.
		416	730.7	57	14	57½		
		418						
		429						

NOTE.—All the observations marked thus, (†) were made between Lake Etchemin and the Metjarmette waters.



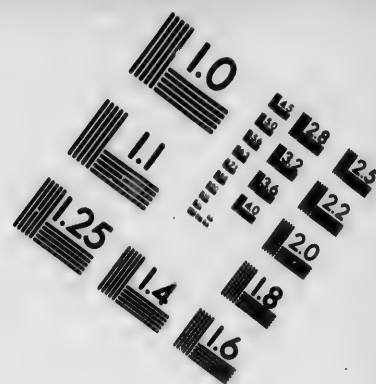
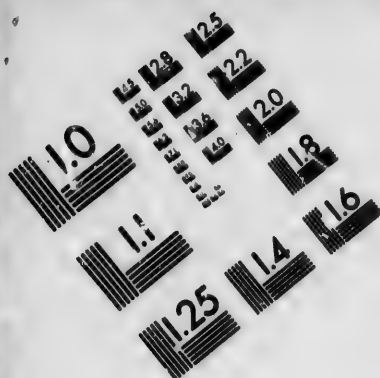
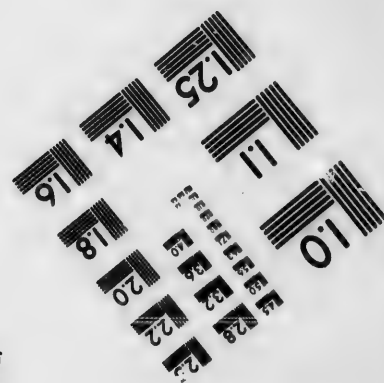
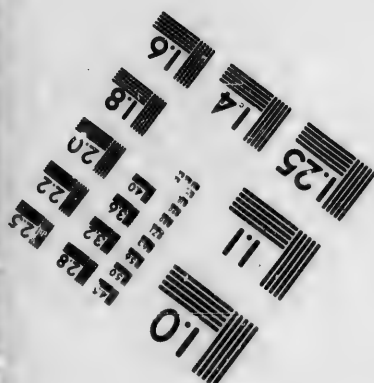
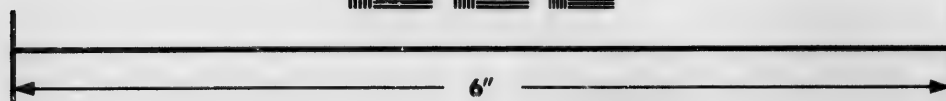
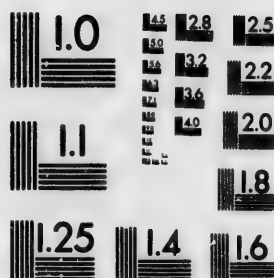
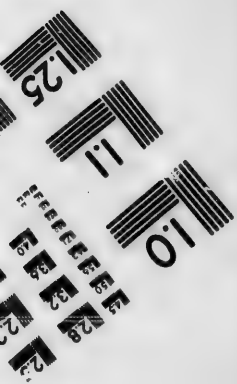


IMAGE EVALUATION TEST TARGET (MT-3)



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23 WEST MAIN STREET
WEBSTER, N.Y. 14580
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Record of Barometric Observations.—*Continued.*

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Aug. 31, 11 A.M.	† Caribou Plain, three-quarters of a mile from stream	411 413 414	729·8	59	15	55		Raining.
12	Lake Etchemin ..	377 416 418 429	730·6	57	14	57½		Wind east; rain- ing.
	† Caribou Plain ..	411 413 414	729·4	60	15½	56		Wind east.
2 P.M.	Lake Etchemin ..	377 416 418 429	730·1	57	14	57½		Wind south-east; raining.
	† Half a mile south- east of 1st station.	411 413 414	728·1	58	14½	56½		Wind south-east.
4 P.M.	Lake Etchemin ..	377 416 418 429	729·9	58½	14½	59		Wind south-east.
	* Small brook of Penobscot.	456 457 458	723·4	56½	13½	55½		Cloudy.
	† One mile further on.	414 413 414	727·5	57½	14½	55½		Raining.
Sept. 1, 8 A.M.	Lake Etchemin ..	377 416 418 429	728·1	54½	12½	55		Wind south-east; foggy.
	† Camp	411 413 414	725·1	55½	13	54		Wind south-east; foggy.
9 A.M.	Lake Etchemin ..	377 416 418 429	728·3	55½	13	56		Wind east; rain- ing.
	† Half a mile further on, south-east.	411 413 414	724·5	57	14	55		Wind east; rain- ing.
10 A.M.	Lake Etchemin ..	377 415 418 429	728·4	56½	13½	57		Wind south-east; heavy.
	† Small stream, La Famine waters.	411 413 414	725·9	57	14	54½		Wind south-east; raining.
11 A.M.	Lake Etchemin ..	377 416 418 429	728·3	57	14	57½		Wind south-east; raining.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 1, 11 A.M.	† On Burnt Land ..	411 413 414	728.0	59	15	57½		Wind south-east; raining.
12	Lake Etchemin ..	377 416 418 429	728.2	58	14½	58½		Wind south-east; raining.
	† On stream, La Famine, one mile further on.	411 413 414	727.3	58	14½	57		Wind south-east; raining.
2 P.M.	Lake Etchemin ..	377 416 418 429	728.1	58½	14½	59½		Wind south-east; cloudy.
	† On march, half a mile further on.	411 413 414	724.0	61	16	56½		Wind south-east; raining.
3 P.M.	Lake Etchemin ..	377 416 418 429	728.0	59	15	59½		Wind south-east; raining.
	† Reed Lake ..	411 413 414	724.9	56½	13½	55½		Wind south-east; raining.
Sept. 2, 9 A.M.	Lake Etchemin ..	377 416 418 429	727.7	56½	13½	56½		Wind east; hazy.
	† Reed Lake ..	411 413 414	725.1	55½	13	55		Wind east; hazy.
10 A.M.	Lake Etchemin ..	377 416 418 429	727.7	56½	13½	57		Wind south-east; dull.
	* Ridge between Penobscot waters.	456 457 458	718.0	56½	13½	5½		Wind south; fine.
	† Three-quarters of a mile south-west from last station.	411 413 414	725.0	58	14½	55½		
11 A.M.	Lake Etchemin ..	377 416 418 429	727.6	57½	14½	58		Wind south-east; hazy.
	† La Famine Brook	411 413 414	726.6	59	15	57		Heavy.
12	Lake Etchemin ..	377 416 418 429	727.6	58	44½	59		Wind north-west; calm.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 3, 3 P.M.	† Division of the St. John and La Famine waters.	411 413 414	721·9	67	19½	66		Wind north-west; clear.
5 P.M.	Lake Etchemin ..	377 416 418 429	727·1	73½	23	75		Wind west; clear.
	† Stream flowing east St. John's waters.	411 413 414	724·0	68	20	67½		Wind west; clear.
Sept. 4, 4 P.M.	Lake Etchemin ..	377 416 418 429	723·9	56½	13½	57½		Wind east.
	† Source of stream	411 413 414	719·7	58½	14½	56		Wind east.
Sept. 5, 10 A.M.	Lake Etchemin ..	377 416 418 429	728·5	61½	16½	63		
	† Rising ground ..	411 413 414	720·6	56½	13½	54½		
11 A.M.	Lake Etchemin ..	377 416 418 429	728·7	64	17½	65		Wind south-east; clear.
	† Small brook of St. John.	411 413 414	722·8	59	15	57		Wind north-east; clear.
12	Lake Etchemin ..	377 416 418 429	728·9	65½	18½	66½		Wind east; clear.
	* Top of ridge, same as noon of Sept. 2nd.	456 457 458	706·6	50	10	51		
	† On top of rising ground.	411 413 414	721·1	58	14½	57½		
1 P.M.	Lake Etchemin ..	377 416 418 429	728·9	67	19½	67		Wind east; clear.
	* Same place as 10 A.M. on Sept. 2nd.	456 457 458	719·1	54	12½	54		
	† At south-east turn on a small stream running south.	411 413 414	722·3	59½	15½	60		

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 5, 2 P.M.	Lake Etchemin ..	377 416 418 429	729·1	67½	19½	67½		Wind east; cloudy.
	* Ridge dividing St. John and Penobscot waters.	456 457 458	722·2	60	15½	56		
	† Quarter of a mile further on.	411 413 414	722·1	59	15	59½		
3 P.M.	Lake Etchemin ..	377 415 418 429	729·2	65½	18½	66		Wind north-east; cloudy.
	† Half a mile further on.	411 413 414	724·5	61	16	61		
4 P.M.	Lake Etchemin ..	377 416 418 429	729·4	65½	18½	66½		Wind north-east; calm and clearer.
	* Ridge quarter of a mile west of small branch of Penobscot.	456 457 458	724·5	61½	16½	57		
	† Quarter of a mile further on.	411 413 414	723·7	61	16	60		
5 P.M.	Lake Etchemin ..	377 416 418 429	729·7	66	19	66½		Wind east; clear.
	† On large brook running west.	411 413 414	726·5	60½	15½	60		Wind north-east; fine.
Sept. 6, 8 A.M.	Lake Etchemin ..	377 416 418 429	733·4	56½	13½	57		Wind south-east; clear frost.
	† Three quarters of a mile up stream.	411 413 414	728·9	49½	9½	51		Wind north-east; fine.
9 A.M.	Lake Etchemin ..	377 416 418 429	733·6	61	16	61		Wind south-east; clear.
	† Half a mile further up.	411 413 414	729·0	56	13½	55		
10 A.M.	Lake Etchemin ..	377 416 418 429	733·8	64½	18	66		Wind south-east; clear.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 6, 10 A.M.	† Half a mile further up.	411 413 414	728.3	63	17½	65		
11 A.M.	Lake Etchemin ..	377 416 418 429	734.0	68½	20½	69		Wind south-east; clear.
	† Same place as 11 A.M. of yesterday.	411 413 414	728.0	69	20½	69		
1 P.M.	Lake Etchemin ..	377 416 418 429	734.2	74½	23½	75		Wind south-east; clear.
	† Camp	411 413 414	730.3	70½	21½	71		
2 P.M.	Lake Etchemin ..	377 416 418 429	734.1	75	24	76		Wind south-east; clear.
	† Camp same place	411 413 414	730.2	71½	22	73		
Sept. 7, 8 A.M.	Lake Etchemin ..	377 416 418 429	734.3	55	12½	56		Wind south-west; clear frost.
	† At the discharge of lake.	411 413 414	732.4	57½	14½	59		Wind north-east; fine.
9 A.M.	Lake Etchemin ..	377 416 418 429	734.6	62½	17	63		Wind south-west; clear.
	† On Caribou Plain, half way between two lakes.	411 413 414	732.4	64½	18	64		Fine.
10 A.M.	Lake Etchemin ..	377 416 418 429	734.9	69	20½	71		Wind west; clear,
	Ridge between Penobscot waters.	456 457 458	717.9	68	20	64		
	Ridge between Penobscot and Met-jarmette.	456 457 458	716.9	65½	18½	64		
	† On rising ground, three quarters of a mile on the march.	411 413 414	728.5	68½	20½	68½		

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 7, 11 A.M.	Lake Etchemin ..	377 416 418 429	734·8	68½	23½	75½		Wind south; clear.
	† Three quarters of a mile further on.	411 413 414	724·0	70	21	70		
12	Lake Etchemin ..	377 416 418 429	734·8	77½	25½	77½		Wind south-east; clear.
	† Two miles and a quarter from lakes.	411 413 414	726·2	71	21½	71		
2 P.M.	Lake Etchemin ..	377 416 418 429	734·8	79½	26½	80½		Wind south-south- east; clear.
	† On side of lake, same place as Sept. 11, 6 A.M.	411 413 414	728·0	75	24	76		
4 P.M.	Lake Etchemin ..	377 416 418 429	734·7	79½	26½	81½		Wind south-east.
	† Small lake ..	411 413 414	727·7	71½	22	71		Wind south-east.
5 P.M.	Lake Etchemin ..	377 416 418 429	734·4	77	25	80		Wind south-east.
	† Half a mile further on.	411 413 414	726·6	70½	21½	68½		Wind south-east.
Sept. 8, 9 A.M.	Lake Etchemin ..	377 416 418 422	733·7	64½	18	66½		Wind south-east.
	† Rising ground ..	411 413 414	723·8	64½	18	63½		Wind south-east.
11 A.M.	Lake Etchemin ..	377 416 418 429	734·0	74½	23½	76½		Wind south-east; cloudy.
	† Rising ground ..	411 413 414	720·8	70	21	69½		Wind south-east; cloudy.
1 P.M.	Lake Etchemin ..	377 416 418 429	733·5	77	25	79		Wind south-east.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 8, 1 P.M.	† Small brook ..	411 413 414	718.9	71½	22	72½		Wind south-east.
3 P.M.	Lake Etchemin ..	377 416 418 429	732.9	78	25½	79½		Wind west.
	† Two miles further on.	411 413 414	716.6	72½	22½	71½		Wind west.
4 P.M.	Lake Etchemin ..	377 416 418 429	733.0	79	26	80		Wind west.
	North branch of the Metjarmette.	411 413 414 456 457 458	716.7	66	19	65½		Wind west.
Sept. 9, 8 A.M.	Lake Etchemin ..	377 416 418 429	733.3	57	14	58		Wind east; clear.
	Same as last evening.	411 413 414 456 457 458	716.9	58½	14½	61½		Wind east; clear.
4 P.M.	Lake Etchemin ..	377 416 418 429	734.6	80	26½	82½		Wind south-east; calm and clear.
	Same as last evening.	456 457 458	718.9	70½	21½	71		Wind south-east; calm and clear.
	† Lake, source of the south-western branch of the St. John.	411 413 414	726.0	72	22½	75½		Wind south-east; calm and clear.
Sept. 10, 8 A.M.	Lake Etchemin ..	377 416 418 429	733.9	60	15½	61		Wind south.
	North branch of the Metjarmette.	411 413 414 456 457 458	718.5	59	15	60½		Wind north-west.
12	Lake Etchemin ..	377 416 418 429	734.3	77	25	78½		Wind south.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 10, 12	† Returning to Lake Etchemin.	411 413 414 456 457 458	722·8	79	26	74		Wind north-west.
4 P.M.	Lake Etchemin ..	377 416 418 429	733·2	81	27½	82½		Wind south-west.
	† On branch of La Famine River.	456 457 458	726·0	79	26	75		Wind south-west.
Sept. 11, 8 A.M.	Lake Etchemin ..	377 416 418 429	730·2	60	15½	59½		Wind south.
	† Small lake, same place as the 7th of Sept., 2 P.M.	411 413 414 456 457 458	723·3	63	17½	62½		Wind south-west.
3 P.M.	Lake Etchemin ..	377 416 418 429	730·0	70½	21½	71½		Wind north-west.
	† Between a lake of the St. John and a lake of La Famine, same as Sept. 7th, 9 A.M.	411 413 414 456 457 458	727·1	75	24	73½		Wind north-west.
Sept. 12, 10 A.M.	Lake Etchemin ..	377 416 418 429	722·4	56½	13½	57½		Wind east; cloudy.
	† On march	411 413 414 456 457 458	728·4	55½	13	54½		Wind south-west.
11 A.M.	Lake Etchemin ..	377 416 418 429	732·4	58	14½	58½		Wind east; cloudy.
	† On march	411 413 414 456 457 458	726·3	59	15	56		Wind south-west.
12	Lake Etchemin ..	377 416 418 429	732·4	61½	16½	62		Wind east.

Record of Barometric Observations.— *Continued.*

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 12, 12	† Small stream ..	411 413 414 456 457 458	730.7	59	15	56½		Wind south-west.
1 P.M.	Lake Etchemin ..	377 416 418 429	732.2	61½	16½	62		Wind east; cloudy.
	† Cedar swamp ..	411 413 414 456 457 458	732.0	59½	15½	57		Wind south-west; fine.
2 P.M.	Lake Etchemin ..	377 416 418 429	732.2	65½	18½	67		Wind north.
	† Small stream ..	411 413 414 456 457 458	732.1	60	15½	61		Wind south-west.
4 P.M.	Lake Etchemin ..	377 416 418 429	732.0	65½	18½	67		Wind north-west.
	† Small stream ..	411 413 414 456 457 458	734.6	62	16½	60		Wind south-west.
Sept. 13, 9 A.M.	Lake Etchemin ..	377 416 418 429	732.4	54½	12½	55		Wind west.
	† Same as Sept. 3rd, 9 A.M.	411 413 414 456 457 458	735.2	50	10	51		Wind north-west.
11 A.M.	Lake Etchemin ..	377 416 418 419	732.8	65	18½	66		Wind west.
	† On march	411 413 414 456 457 458	733.8	66½	19½	63½		Wind north-west.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 14, 11 A.M.	† Small lake of La Famine.	411 413 414 456 457 458	734.7	69	20½	62½		Wind north-west.
12	Lake Etchemin ..	377 416 418 429	734.1	65½	18½	67		Wind north-west.
	† Rising ground ..	411 413 414 456 457 458	732.2	64½	18	59½		Wind north-west.
3 P.M.	Lake Etchemin ..	377 416 418 429	734.3	69	20½	72		Wind north-west.
	† Small lake ..	411 413 414 456 457 458	734.9	66	19	63½		Wind north-west.
Sept. 15, 8 A.M.	Lake Etchemin ..	377 416 418 429	738.1	46	7½	46½		Wind east; fine.
	† Same lake as last evening.	411 413 414 456 457 458	738.5	52½	11½	41½		Wind north-east.
11 A.M.	Lake Etchemin ..	377 416 418 429	739.4	65	18½	65		
	† Same as noon of August 30th.	411 413 414 456 457 458	739.9	62½	17	61½		

Comparison of Barometers at Lake Etchemin, September 15th.

Th. D. F.	Th. A. C.	Bar.	Height.	Corrected for Temp.	
71	20 $\frac{1}{2}$	377	738·80	738·82	$2,955·27 + 4 = 738·79.$
	21 $\frac{1}{2}$	416	738·45	738·43	
	20 $\frac{3}{4}$	418	738·80	738·82	
	21	429	739·10	739·10	
	21 $\frac{1}{2}$	411	739·00	738·98	$4,434·23 + 6 = 739·04.$
	21 $\frac{1}{2}$	413	739·00	738·98	
	21 $\frac{1}{2}$	414	739·20	739·15	
	21 $\frac{1}{2}$	456	738·60	738·55	
	21 $\frac{1}{2}$	457	739·40	739·35	
	21 $\frac{1}{2}$	458	739·30	739·22	

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 26, 2 P.M.	Lake Etchemin ..	416	717·9	61	16	60 $\frac{1}{2}$		Wind south-west.
		418						
		429						
	Lake Archer, 15 feet above water.	456	715·8	60 $\frac{1}{2}$	15 $\frac{3}{4}$	59 $\frac{3}{4}$		Wind south-west.
		457						
		458						
4 P.M.	Lake Etchemin ..	416	716·6	59 $\frac{1}{2}$	15 $\frac{1}{2}$	60		Wind south; cloudy.
		418						
		429						
	One mile and a half north of Lake Ar- cher.	456	703·3	62	16 $\frac{3}{4}$	57 $\frac{1}{2}$		Wind south; cloudy.
		457						
		458						
Sept. 27, 8 A.M.	Lake Etchemin ..	416	724·7	48	9	49		Wind west; cloudy.
		418						
		429						
	On small stream, Etchemin waters.	456	722·7	47	8 $\frac{1}{2}$	46 $\frac{1}{2}$		
		457						
		458						
	Lake Etchemin ..	416	725·7	48 $\frac{1}{2}$	9 $\frac{1}{2}$	49		Wind west; cloudy.
		418						
		429						
	Top of hill	456	708·4	44 $\frac{3}{4}$	7	43 $\frac{1}{2}$		
		457						
		458						
12	Lake Etchemin ..	416	726·1	51 $\frac{1}{2}$	10 $\frac{3}{4}$	51 $\frac{1}{2}$		Wind west.
		418						
		429						
	Etchemin River ..	456	724·1	51	10 $\frac{1}{2}$	49		Wind west.
		457						
		458						
2 P.M.	Lake Etchemin ..	416	726·7	53 $\frac{3}{4}$	12	53 $\frac{1}{2}$		Wind west; cloudy.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 27, 2 P.M.	Top of hill	456 457 458	712.4	50	10	48½		Wind north-west.
3 P.M.	Lake Etchemin ..	416 418 429	726.8	54½	12½	54½		Wind west.
	Small stream	456 457 458	712.2	52½	11½	50		
4 P.M.	Lake Etchemin ..	416 418 429	727.0	54½	12½	55		Wind west.
	One mile further on	456 457 458	710.0	51	10½	47½		
5 P.M.	Lake Etchemin ..	416 418 429	727.0	52	11	52		Wind west.
	Small stream, St. John's waters.	456 457 458	716.8	48½	9½	48		
Sept. 29, 11 A.M.	Lake Etchemin ..	416 418 429	725.5	44	6½	44		Wind north-east.
	Quarter of a mile north-west from last station.	456 457 458	714.9	43½	6½	41½		Wind north-east.
2 P.M.	Lake Etchemin ..	416 418 429	725.8	44½	7	44½		Wind north-east.
	Small stream ..	456 457 458	719.3	44½	7	44		Wind north-east.
3 P.M.	Lake Etchemin ..	416 418 429	725.9	44	6½	44		Wind north-east.
	Hardwood ridge ..	456 457 458	712.4	43½	6½	41		Wind north-east.
4 P.M.	Lake Etchemin ..	416 418 429	726.1	43½	6½	44		Wind north-east.
	Top of Hardwood Hill.	456 457 458	705.4	43½	6½	39		Wind north-west.
5 P.M.	Lake Etchemin ..	416 418 429	726.1	43½	6½	43½		Wind north-east.
	Small brook	456 457 458	705.1	40½	4½	38		

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Sept. 30, 8 A.M.	Lake Etchemin ..	416 418 429	725·2	38½	3½	38½		Wind east.
	Same as last night ..	456 457 458	702·3	35	1½	32½		
9 A.M.	Lake Etchemin ..	416 418 429	724·8	39	4	38½		Wind east.
	Top of ridge	456 457 458	688·1	34½	1½	32½		Wind north-west.
3 P.M.	Lake Etchemin ..	416 418 429	723·9	36½	2½	36½		Wind east; snow- ing.
	Top of ridge, dividing the St. John's wa- ters from those of the Du Sud.	456 457 458	690·1	35½	2	32½		Wind east.
Oct. 1, 12	Lake Etchemin ..	416 418 429	726·7	41½	5½	41		
	On top of same ridge.	456 457 458	697·1	35½	2	33		
Oct. 2, 10 A.M.	River Ouelle, 46 feet above high tide at its mouth in the St. Lawrence.	377 411 414	772·6	52	11	45½		Wind north-east; fair.
	Lake Etchemin ..	416 418 429	737·1	40½	4½	40½		Wind east.
	On same ridge ..	456 457 458	705·5	42	5½	38½		Wind east.
11 A.M.	Lake Etchemin ..	416 418 429	737·3	43½	6½	44½		Wind east.
	Same place on ridge	456 457 458	705·4	40½	4½	39		Wind east.
12	Lake Etchemin ..	416 418 429	737·5	44½	7	44½		Wind east.
	Small stream, Du Sud.	456 457 458	733·2	44½	7	43½		Wind east.
2 P.M.	Lake Etchemin ..	416 418 429	737·4	47	3½	47		Wind east.
	Top of ridge	456 457 458	715·9	44	6½	43		

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Oct. 2, 3 P.M.	Lake Etchemin ..	416	737·6	46½	8	46½		Wind east.
		418						
		429						
	Spur of ridge ..	456 457 458	732·8	46½	8	44		
4 P.M.	Lake Etchemin ..	416	737·3	46½	8	46½		Wind east.
		418						
		429						
	Small stream of the St. John.	456 457 458	738·5	46½	8	42		
Oct. 3, 9 A.M.	Lake Etchemin ..	416	736·8	39½	4½	40		Wind east.
		418						
		429						
	On small hill ..	456 457 458	733·9	39	4	34		
11 A.M.	Lake Etchemin ..	416	736·9	44	6½	44		Wind east.
		418						
		429						
	In a swamp ..	456 457 458	729·9	43½	6½	41		
12	River Ouelle ..	377	772·2	53½	12	53½		Wind north-east; clear.
		411						
		414						
	Lake Etchemin ..	416	736·9	46	7½	45½		Wind east.
		418						
		429						
2 P.M.	Lake Etchemin ..	416	734·8	47	8½	48		Wind east.
		418						
		429						
	Small brook ..	456	734·0	51	10½	47		
		457						
		458						
3 P.M.	Lake Etchemin ..	416	734·8	46½	8	47½		Wind east.
		418						
		429						
	On a gentle rise ..	456 457 458	728·9	50	10	45		
4 P.M.	River Ouelle ..	377	769·7	52	11	51½		Wind north-east.
		411						
		414						
	Lake Etchemin ..	416 418 429	734·4	50½	8½	47		Wind east.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Oct. 5, 9 A.M.	Lake Etchemin ..	416 418 429	731·7	37½	3	37½		Wind east.
	Top of ridge	456 457 458	721·8	35	1½	35		Wind east.
10 A.M.	Lake Etchemin ..	416 418 429	731·8	39½	4½	39		Wind east.
	Small stream ..	456 457 458	729·3	43	6	39½		Wind east.
12	Lake Etchemin ..	416 418 429	732·3	44½	7	44½		Wind east.
	Top of ridge	456 457 458	730·1	46	7½	42½		Wind east.
1 P.M.	Lake Etchemin ..	416 418 429	732·1	48	9	48½		Wind east.
	Small stream ..	456 457 458	731·6	44½	7	44		Wind east.
2 P.M.	Lake Etchemin ..	416 418 429	732·2	48½	9½	48½		Wind north-east.
	Top of ridge	456 457 458	724·9	50½	10½	46		Wind east.
3 P.M.	Lake Etchemin ..	416 418 429	731·9	48½	9½	49		Wind north-east.
	On march	457 458 459	724·3	48	9	46		Wind north-east.
4 P.M.	Lake Etchemin ..	416 418 429	732·0	49½	9½	49½		Wind east.
	Small lake of the St. John.	456 457 458	728·9	47½	8½	46½		Wind east.
Oct. 6, 9 A.M.	Lake Etchemin ..	416 418 429	731·7	41	5	41		Wind east; fine.
	Same lake as last night.	456 457 458	729·0	42	5½	44½		Wind north-east; fair.
10 A.M.	River Ouelle	377 411 414	767·7	48	9	49		Wind east; fine.

Record of Barometric Observations.—Continued.

Date and Time.	Station.	Bar.	Height.	Th. A.		Th. D.		Remarks.
				F.	C.	F.	C.	
1841 Oct. 10, 4 P.M.	Lake Etchemin ..	416 418 429	727.6	54½	7½	45½		Wind west; rain.
Oct. 11, 8 A.M.	River Ouelle ..	377 411 414	762.5	48½	9½	47½		Wind west.
	Lake Etchemin ..	416 418 429	728.6	34½	1½	35		
	High tide, St. Roc.	456 457 458	764.0	43	6	42		

Comparison of Barometers at Quebec, October 20th.

Th. D. F.	Th. A. C.	Bar.	Height.	Corrected for Temp.	
44	7½	377	748.55	748.53	2,245.46 + 3 = 748.49.
	7½	411	748.60	748.58	
	7½	414	748.40	748.35	
	7½	416	748.40	748.85	2,245.95 + 3 = 748.65.
	7½	418	748.75	748.70	
	7½	429	748.95	748.90	
	7	456	747.95	747.95	2,246.00 + 3 = 748.66.
	7	457	749.05	749.05	
	7	458	749.00	749.00	

Comparison of Barometers at Quebec, October 18th.

Th. D. F.	Th. A. C.	Bar.	Height.	Corrected for Temp.	
44	8½	377	766.65	766.60	2,300.13 + 3 = 766.71.
	8½	411	766.85	766.83	
	8	414	766.70	766.70	
	7½	416	766.60	766.62	2,300.31 + 3 = 766.77.
	7½	418	766.90	766.92	
	8½	429	766.85	766.77	
	7½	456	766.00	766.05	2,300.52 + 3 = 766.84.
	7½	457	767.20	767.25	
	7½	458	767.20	767.22	

Comparison of Barometers at Quebec, October 19th.

Th. D. F.	Th. A. C.	Bar.	Height.	Corrected for Temp.	
42½	6½	377	753·95	753·93	2,261·51 + 3 = 753·54.
	6½	411	753·85	753·83	
	6½	414	753·80	753·75	
	6½	416	753·60	753·58	2,261·58 + 3 = 753·59.
	6	418	754·05	754·05	
	6½	429	754·10	754·05	
	6½	456	753·20	753·18	2,261·19 + 3 = 753·73.
	6½	457	754·20	754·18	
	6½	458	753·85	753·83	

The mean of seventy-nine observations computed to Quebec, gives the height of the observatory at Lake Etchemin 1,231 feet above the observatory at Quebec.

The mean of thirty observations selected from the above, makes it 1228 feet, to which twenty-five feet (the height of the observatory at Quebec above high tide) is to be added, and the sum, 1,253 feet, is the height of the observatory at Lake Etchemin* above high tide at Quebec.

By a mean of eleven observations, the monument on the Kennebec road is 784 feet above the observatory at Lake Etchemin, to which add 1,253 feet for the height of Lake Etchemin, 784+1,253=2,037 feet above high tide, Quebec.

The same place computed to Quebec by a mean of seven observations, gives 2,007 feet above the observatory at Quebec, to which is to be added twenty-five feet, and the sum is 2,032 feet, not differing materially from the other.

* The surface of the water in Lake Etchemin, is five feet below the observatory.

Abstract of Heights as deduced from Barometric Observations at the Principal Stations along the lines of Survey.

Date and Time.	Station.	Height.	
1841			
June 3, 8 A. M.	St. Anselme	484	ft. above Queen's Wharf Quebec.
	Queen's Wharf	12	ft. above high tide Quebec.
	St. Anselme	496	ft. above high tide, Quebec.
	12		
	Frampton Hill	1,097	ft. above Queen's Wharf, Quebec.
	Queen's Wharf	12	ft. above high tide, Quebec.
	Frampton Hill	1,109	ft. above high tide, Quebec.
	4 P. M.		
	Bridge on L'Eau Chaude . .	893	ft. above Queen's Wharf, Quebec.
	Queen's Wharf	12	ft. above high tide, Quebec.
	Bridge on L'Eau Chaude . .	905	ft. above high tide, Quebec.
June 5, 8 A. M.	Ridge five miles north of Lake Etchemin	134	ft. above Lake Etchemin.
	Lake Etchemin	1,253	ft. above high tide, Quebec.
	Ridge five miles north of Lake Etchemin	1,387	ft. above high tide, Quebec.
June 22, 8 A. M.	Port St. Francis	11	
		25	
		36	ft. above high tide, Quebec.
	2 P. M.		
	St. Zephyra	107	
		25	
		132	ft. above high tide, Quebec.
	4 P. M.		
	Wendover	170	
		26	
		195	ft. above high tide, Quebec.
June 23, 8 A. M.	Wickham	363	
		25	
		388	ft. above high tide, Quebec.
	10, A. M.		
	Durham	584	
		25	
		609	ft. above high tide, Quebec.
	2 P. M.		
	Melbourne	356	
		25	
		381	ft. above high tide, Quebec.
June 24, 2 P. M.	Sherbrooke	531	ft. above high tide, Quebec.
June 26, 4 P. M.	Compton	835	ft. above high tide, Quebec.
June 27, to June 30, inclusive.	Stanstead	1,025	ft. above high tide, Quebec.
June 29, 2 P. M.	Lake Memphramagog	379	ft. below Stanstead.
		1,025	
		646	ft. above high tide, Quebec.

Abstract of Barometric Heights.—*Continued.*

Date and Time.	Station.	Height.	
1841			
July 1, 8 A. M.	Fouche R. Coaticook . . .	1,005	ft. above high tide, Quebec.
2 P. M.	Bassford	987	ft. above high tide, Quebec.
July 3, 2 P. M. to July 4, 8 A. M.	Junction of Leech Stream with Connecticut River, ten feet above water.	941 10	
		931	ft. above high tide, Quebec.
July 6, 8 A. M.	Lake Connecticut	1,780.	ft. above high tide, Quebec.
July 7, 8 A. M.	Connecticut River between first and second lakes	1,875	ft. above high tide, Quebec.
July 8, 8 A. M.	First Lake Connecticut	2,124	ft. above high tide, Quebec.
12	Ridge dividing the Connecticut and Margalloway waters . . .	2,904	ft. above high tide, Quebec.
4 P. M.	Ridge dividing the Connecticut and St. Francis waters . . .	2,581	ft. above high tide, Quebec.
July 9, 8 A. M.	Sources of the St. Francis . .	1,762	ft. above high tide, Quebec.
4 P. M.	Swamp—Valley of St. Francis .	1,572	ft. above high tide, Quebec.
July 10, 12 & 2 P. M.	Ben D'Urbain	2,527	ft. above high tide, Quebec.
July 11, 10 A. M.	Top of ridge	2,600	ft. above high tide, Quebec.
2 P. M.	Swamp	2,246	ft. above high tide, Quebec.
4 P. M.	Top of ridge	2,753	ft. above high tide, Quebec.
July 12, 8 A. M.	Gipp's Peak, 300 ft. below top .	2,760 300	ft. above high tide, Quebec.
		3,060	
10 A. M.	Small river foot of Gipp's Peak	1,915	ft. above high tide, Quebec.
12	Top of ridge	2,505	ft. above high tide, Quebec.
4 P. M.	Arnold's River	1,924	ft. above high tide, Quebec.
July 13, 10 A. M.	Mount Gosford	3,665	ft. above high tide, Quebec.
12	Top of ridge	2,617	ft. above high tide, Quebec.
5 P. M.	Mountain, six miles south of Lake Macanamac	2,633	ft. above high tide, Quebec.
July 14, 8 A. M.	Camp	2,124	ft. above high tide, Quebec.
10 A. M.	Ridge	2,040	ft. above high tide, Quebec.
12	Two miles north-east of last place	2,285	ft. above high tide, Quebec.
2 P. M.	Ridge	1,560	ft. above high tide, Quebec.
3 P. M.	Highest point	1,790	ft. above high tide, Quebec.
4 P. M.	Bottom of hill	1,465	ft. above high tide, Quebec.
July 15, 8 A. M.	On ridge	2,384	ft. above high tide, Quebec.
10 A. M.	Swamp	1,263	ft. above high tide, Quebec.

Abstract of Barometric Heights.—Continued.

Date and Time.	Station.	Height.	
1841			
July 16, 4 P. M.	Lake Macanamae	1,319	ft. above high tide, Quebec.
"	Lake Macanamae, calculated to Quebec	1,321	ft. above high tide, Quebec.
July 17, 8 A. M.	Top of mountain	2,588	ft. above high tide, Quebec.
10 A. M.	Summit of ridge	2,651	ft. above high tide, Quebec.
12	Foot of ridge	1,919	ft. above high tide, Quebec.
2½ P. M.	Summit of ridge	2,673	ft. above high tide, Quebec.
4 P. M.	Small rivulet	1,818	ft. above high tide, Quebec.
4½ P. M.	Highest point of hill . . .	2,025	ft. above high tide, Quebec.
July 18, 10 A. M.	Top of ridge	2,302	ft. above high tide, Quebec.
12	Small stream	1,934	ft. above high tide, Quebec.
2 P. M.	On ridge	1,936	ft. above high tide, Quebec.
4 P. M.	On ridge	2,113	ft. above high tide, Quebec.
July 19, 8 A. M.	Small lake	1,560	ft. above high tide, Quebec.
10 A. M.	On ridge	1,967	ft. above high tide, Quebec.
12	Cedar swamp	1,823	ft. above high tide, Quebec.
2 P. M.	Small brook flowing into Chaudière	1,605	ft. above high tide, Quebec.
4 P. M.	Ridge	2,303	ft. above high tide, Quebec.
5½ P. M.	Ridge	2,644	ft. above high tide, Quebec.
July 20, 10 A. M.	Source Du Loup	1,942	ft. above high tide, Quebec.
12	Source Du Loup	1,795	ft. above high tide, Quebec.
2 P. M.	Ridge	2,419	ft. above high tide, Quebec.
4 P. M.	Depression in ridge . . .	2,053	ft. above high tide, Quebec.
July 21, 10 A. M.	On ridge	2,421	ft. above high tide, Quebec.
12	Small brook	1,751	ft. above high tide, Quebec.
2 P. M.	Lake Emilie, Du Loup waters .	1,641	ft. above high tide, Quebec.
7 P. M.	Small hill	3,113	ft. above high tide, Quebec.
July 22, 8 A. M.	Sandy stream	1,727	ft. above high tide, Quebec.
10 A. M.	Sandy bay settlement, Hilton's	1,637	ft. above high tide, Quebec.
July 23, 4 P. M.	Intersection of Kennebec road and Metjarmette river .	826	ft. above high tide, Quebec.
July 24, 8 A. M.	Bridge at St. Henri, 15 feet above water	243	ft. above high tide, Quebec.
Aug. 6, 4 P. M.	St. Joseph's	463	ft. above high tide, Quebec.
Aug. 10, 10 A. M.	Monument on Kennebec road (mean of eleven observations computed to Lake Etchemin	784 1,253 2,037	ft. above observatory at Lake Etchemin. ft. above high tide, Quebec.

Abstract of Barometric Heights.—Continued.

Date and Time.	Station.	Height.	
1841 Aug. 10, 10 A. M.	Same place, (mean of seven observations computed to Quebec)	2,007 25	ft. above observatory at Quebec.
		2,032	feet above high tide at Quebec.
Aug. 12, 12 & 2 P. M.	Bald mountain	1,587 2,037	feet above monument.
		3,624	feet above high tide at Quebec.
Aug. 16, 10 A. M.	On ridge two miles north-east of monument	2,551	feet above high tide at Quebec.
4 P. M.	Camp on side of ridge, three miles from monument .	2,347	feet above high tide at Quebec.
Aug. 17, 8 A. M.	Same as last evening . . .	2,332	
		2) 4,679	
		2,339	feet above high tide at Quebec.
10 A. M.	On lake, Du Loup water, seven feet above	2,116	feet above high tide at Quebec.
11 A. M.	Top of ridge, one mile north-east of lake	2,333	feet above high tide at Quebec.
12 A. M.	Small brook	2,103	feet above high tide at Quebec.
3 A. M.	Small brook	1,926	feet above high tide at Quebec.
Aug. 18, 8 A. M.	Small brook	1,910	
		2) 3,836	
		1,918	feet above high tide at Quebec.
10 A. M.	One mile north-east of camp .	2,025	feet above high tide at Quebec.
11 A. M.	One mile and a half north-east of camp	2,280	feet above high tide at Quebec.
2 P. M.	Top of ridge	2,188	feet above high tide at Quebec.
3 P. M.	Top of ridge	2,446	feet above high tide at Quebec.
4 P. M.	Lake flowing into Portage R, six feet above water . .	1,955	feet above high tide at Quebec.
Aug. 19, 8 A. M.	Same place	1,912	
		2) 3,867	
		1,933	feet above high tide at Quebec.
10 A. M.	Ridge between the two lakes of Portage River	2,223	feet above high tide at Quebec.
11 A. M.	New Portage Road	1,662	feet above high tide at Quebec.
2 P. M.	Portage Lake	1,604	feet above high tide at Quebec.
Aug. 24, 10 A. M.	Portage between lakes . . .	1,690	feet above high tide at Quebec.
	Penobscot Lake	1,586	feet above high tide at Quebec.
2 P. M.	Top of small hill	1,964	feet above high tide at Quebec.
Aug. 25, 8 A. M.	Top of small hill	1,847	feet above high tide at Quebec.

Abstract of Barometric Heights.—Continued.

Date and Time.	Station.	Height.	
1841			
Aug. 25, 10 A. M.	Small brook, Metjarmette . .	1,568	feet above high tide, Quebec.
12	Swamp	1,608	feet above high tide, Quebec.
2 P. M.	Dividing Land	1,855	feet above high tide, Quebec.
Aug. 26, 10 A. M.	Between Penobscot and Metjarmette waters	2,104	feet above high tide, Quebec.
Aug. 27, 4 P. M.	Between Penobscot and Metjarmette waters	2,046	feet above high tide, Quebec.
Aug. 28, 10 A. M.	Small lake of Penobscot . .	1,856	feet above high tide, Quebec.
2 P. M.	Small stream of Penobscot .	1,520	feet above high tide, Quebec.
4 P. M.	Ridge dividing Penobscot waters, 300 feet below top . .	1,753 300	
		2,053	feet above high tide, Quebec.
Aug. 29, 10 A. M.	Ridge between two branches of the Penobscot	1,718	feet above high tide, Quebec.
12	Small brook Penobscot . .	1,556	feet above high tide, Quebec.
Aug. 30, 1 P. M.	Two miles and a quarter south-east of Lake Etchemin . .	1,389	feet above high tide, Quebec.
3 P. M.	Three miles and a half south of Lake Etchemin	1,305	feet above high tide, Quebec.
4 P. M.	Four miles S. of Lake Etchemin	1,330	feet above high tide, Quebec.
Aug. 31, 9 A. M.	Small hill in swamp	1,415	feet above high tide, Quebec.
10 A. M.	Swamp heading branch of Penobscot	1,368	feet above high tide, Quebec.
	Branch of La Famine	1,271	feet above high tide, Quebec.
11 A. M.	Caribou Plain, three-quarters of a mile from the stream . .	1,293	feet above high tide, Quebec.
12	Caribou Plain	1,307	feet above high tide, Quebec.
2 P. M.	Half a mile south-east of last place	1,331	feet above high tide, Quebec.
4 P. M.	Small brook of Penobscot . .	1,494	feet above high tide, Quebec.
	One mile further on	1,341	feet above high tide, Quebec.
Sept. 1, 8 A. M.	Camp	1,369	feet above high tide, Quebec.
9 A. M.	Half a mile south-east	1,403	feet above high tide, Quebec.
10 A. M.	Small stream La Famine	1,349	feet above high tide, Quebec.
11 A. M.	Burnt Land	1,270	feet above high tide, Quebec.
12	Stream of La Famine	1,287	feet above high tide, Quebec.
2 P. M.	Half a mile further on	1,416	feet above high tide, Quebec.
3 P. M.	Reed Lake	1,363 1,351	
		2)2,714	feet above high tide, Quebec.
		1,357	

Abstract of Barometric Heights.—Continued.

Date and Time.	Station.	Height.	
1841 Sept. 2, 10 A. M.	Ridge between Penobscot waters	1,624	feet above high tide, Quebec.
	Three-quarters of a mile south-west from lake	1,360	feet above high tide, Quebec.
11 A. M.	Brook of La Famine	1,218	feet above high tide, Quebec.
12	Ridge between Penobscot waters and southern sources of the St. John	2,071	feet above high tide, Quebec.
	Burnt Land	1,297	feet above high tide, Quebec.
4 P. M.	Lake of the St. John, South Lake	1,459	feet above high tide, Quebec.
	Brook of La Famine	1,155	feet above high tide, Quebec.
Sept. 3, 9 A. M.	Branch of La Famine	1,371	feet above high tide, Quebec.
12	Small brook of the St. John, east of South Lake	1,547	feet above high tide, Quebec.
	Same brook of La Famine, two miles higher up	1,228	feet above high tide, Quebec.
2 P. M.	Ridge east of South Lake, dividing St. John and Penobscot waters	1,775	feet above high tide, Quebec.
	One mile south-east of last place	1,443	feet above high tide, Quebec.
3 P. M.	Division of St. John and La Famine waters	1,448	feet above high tide, Quebec.
5 P. M.	Small stream, St. John waters	1,359	feet above high tide, Quebec.
Sept. 4, 4 P. M.	Source of same stream	1,419	feet above high tide, Quebec.
Sept. 5, 10 A. M.	Rising ground	1,541	feet above high tide, Quebec.
11 A. M.	Small brook of the St. John	1,466	feet above high tide, Quebec.
12	Ridge, same as noon of Sept. 2	2,053	feet above high tide, Quebec.
	Rising ground	1,532	feet above high tide, Quebec.
1 P. M.	Same as 10 A. M., Sept. 2	1,594	feet above high tide, Quebec.
	Small stream flowing south	1,487	feet above high tide, Quebec.
2 P. M.	Ridge	1,497	feet above high tide, Quebec.
	Quarter of a mile south of small stream	1,499	feet above high tide, Quebec.
3 P. M.	Half a mile further on	1,422	feet above high tide, Quebec.
4 P. M.	Ridge, quarter of a mile west of small branch of Penobscot	1,430	feet above high tide, Quebec.
	Quarter of a mile further on	1,459	feet above high tide, Quebec.
5 P. M.	Large brook flowing west	1,360	feet above high tide, Quebec.
Sept. 7, 8 A. M.	Small lake	1,333	feet above high tide, Quebec.
9 A. M.	Caribou Plain	1,342	feet above high tide, Quebec.
10 A. M.	Ridge between Penobscot waters	1,912	feet above high tide, Quebec.

Abstract of Barometric Heights.—Continued.

Date and Time.	Station.	Height.	
1841			
Sept. 7, 10 A. M.	Ridge between Penobscot and Metjarquette	1,944	feet above high tide, Quebec.
	Rising ground	1,500	feet above high tide, Quebec.
11 A. M.	Three quarters of a mile further on	1,680	feet above high tide, Quebec.
12	Two miles and a quarter from lakes	1,572	feet above high tide, Quebec.
2 P. M.	Small lake, same as Sept. 11, 8 A. M.	1,375	feet above high tide, Quebec.
5 P. M.	Half a mile further on	1,520	feet above high tide, Quebec.
Sept. 8, 9 A. M.	Rising ground	1,635	feet above high tide, Quebec.
11 A. M.	Rising ground	1,758	feet above high tide, Quebec.
1 P. M.	Brook of Metjarquette	1,816	feet above high tide, Quebec.
3 P. M.	Two miles on	1,884	feet above high tide, Quebec.
4 P. M.	North branch of the Metjarquette	1,857	feet above high tide, Quebec.
Sept. 10, 8 A. M.	North branch of the Metjarquette	1,857	feet above high tide, Quebec.
Sept. 9, 4 P. M.	Small lake, source of the southwestern branch of the St. John	1,619	feet above high tide, Quebec.
Sept. 11, 8 A. M.	Small lake, same as Sept. 7, 2 P. M.	1,526	feet above high tide, Quebec.
3 P. M.	Between a lake of the St. John and La Famine, same as Sept. 7, 9 A. M.	1,379	feet above high tide, Quebec.
Sept. 13, 9 A. M.	Same as Sept. 8, 9 A. M. . . .	1,370	feet above high tide, Quebec.
4 P. M.	Burnt Land	1,194	feet above high tide, Quebec.
Sept. 14, 8 A. M.	Same	1,180	feet above high tide, Quebec.
10 A. M.	Three-quarters of a mile from last station	1,156	feet above high tide, Quebec.
11 A. M.	Small lake of La Famine	1,233	feet above high tide, Quebec.
12	Rising ground	1,327	feet above high tide, Quebec.
3 P. M.	Small lake	1,241	feet above high tide, Quebec.
Sept. 15, 11 A. M.	Same as Aug. 30, 12	1,228	feet above high tide, Quebec.
Sept. 26, 2 P. M.	Lake Archer, fifteen feet above water	1,318	feet above high tide, Quebec.
4 P. M.	One mile and a half north of Lake Archer	1,780	feet above high tide, Quebec.
Sept. 27, 8 A. M.	Small stream, Etchemin	1,326	feet above high tide, Quebec.
10 A. M.	Top of hill	1,895	feet above high tide, Quebec.
12	River Etchemin	1,327	feet above high tide, Quebec.
2 P. M.	Top of hill	1,786	feet above high tide, Quebec.
3 P. M.	Small stream	1,806	feet above high tide, Quebec.
4 P. M.	One mile further on	1,890	feet above high tide, Quebec.

Abstract of Barometric Heights.—Continued.

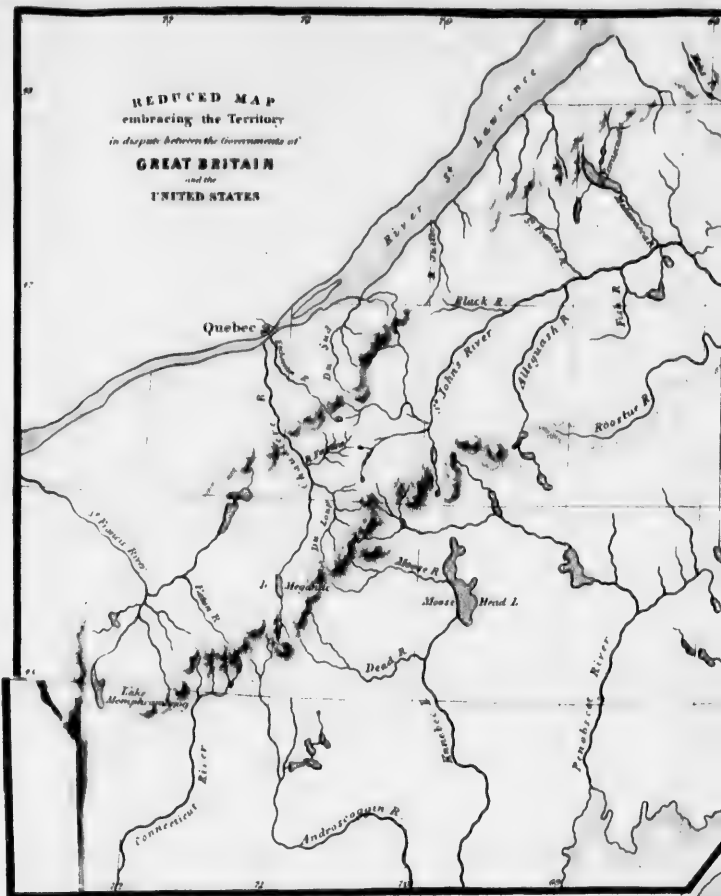
Date and Time.	Station.	Height.	
1841			
Sept. 27, 5 P. M.	Small stream, St. John . . .	1,629	feet above high tide, Quebec.
Sept. 29, 4 P. M.	Top of Hard-wood Ridge . . .	2,027	feet above high tide, Quebec.
Sept. 30, 9 A. M.	Top of ridge	2,615	feet above high tide, Quebec.
12	Top of same ridge	2,340	feet above high tide, Quebec.
Oct. 2, 12	Small stream Du Sud	1,346	feet above high tide, Quebec.
2 P. M.	Top of ridge	2,043	feet above high tide, Quebec.
4 P. M.	Small stream, St. John . . .	1,209	feet above high tide, Quebec.
Oct. 3, 11 A. M.	In a swamp	1,507	feet above high tide, Quebec.
12	Small stream, Du Sud	1,519	feet above high tide, Quebec.
3 P. M.	Gentle rise	1,481	feet above high tide, Quebec.
Oct. 4, 10 A. M.	On ridge	1,888	feet above high tide, Quebec.
4 P. M.	Small lake of the St. John . .	1,543	feet above high tide, Quebec.
Oct. 5, 9 A. M.	Top of ridge	1,607	feet above high tide, Quebec.
10 A. M.	Small stream	1,354	feet above high tide, Quebec.
3 P. M.	On flat	1,434	feet above high tide, Quebec.
4 P. M.	Small lake of the St. John . .	1,353	feet above high tide, Quebec.
Oct. 6, 10 A. M.	Table land	1,448	feet above high tide, Quebec.
11 A. M.	Same table land	1,391	feet above high tide, Quebec.
12	Gentle rise	1,641	feet above high tide, Quebec.
1 P. M.	Stream of St. John	1,461	feet above high tide, Quebec.
3 P. M.	Spruce Swamp	1,372	feet above high tide, Quebec.
4 P. M.	Small lake of St. John	1,344	feet above high tide, Quebec.
Oct. 7, 9 A. M.	Half a mile north of lake . . .	1,458	ft. above high tide, River Ouelle.
10 A. M.	Spruce Swamp	1,504	ft. above high tide, River Ouelle.
12	Same swamp	1,334	ft. above high tide, River Ouelle.
3 P. M.	Small stream of the St. John .	1,348	ft. above high tide, River Ouelle.
4 P. M.	Swamp	1,470	ft. above high tide, River Ouelle.
Oct. 8, 9 A. M.	Gentle rise	1,568	ft. above high tide, River Ouelle.
12	Stream flowing into Black River	1,174	ft. above high tide, River Ouelle.
2 P. M.	Spruce Swamp	1,223	ft. above high tide, River Ouelle.
4 P. M.	Spruce Swamp	1,266	ft. above high tide, River Ouelle.
Oct. 9, 9 A. M.	Swamp	1,203	ft. above high tide, River Ouelle.
10 A. M.	Branch of Black River	1,119	ft. above high tide, River Ouelle.
3 P. M.	Swamp	1,068	ft. above high tide, River Ouelle.
Oct. 10, 8 A. M.	Source of River Ouelle	980	ft. above high tide, River Ouelle.

Quelle.

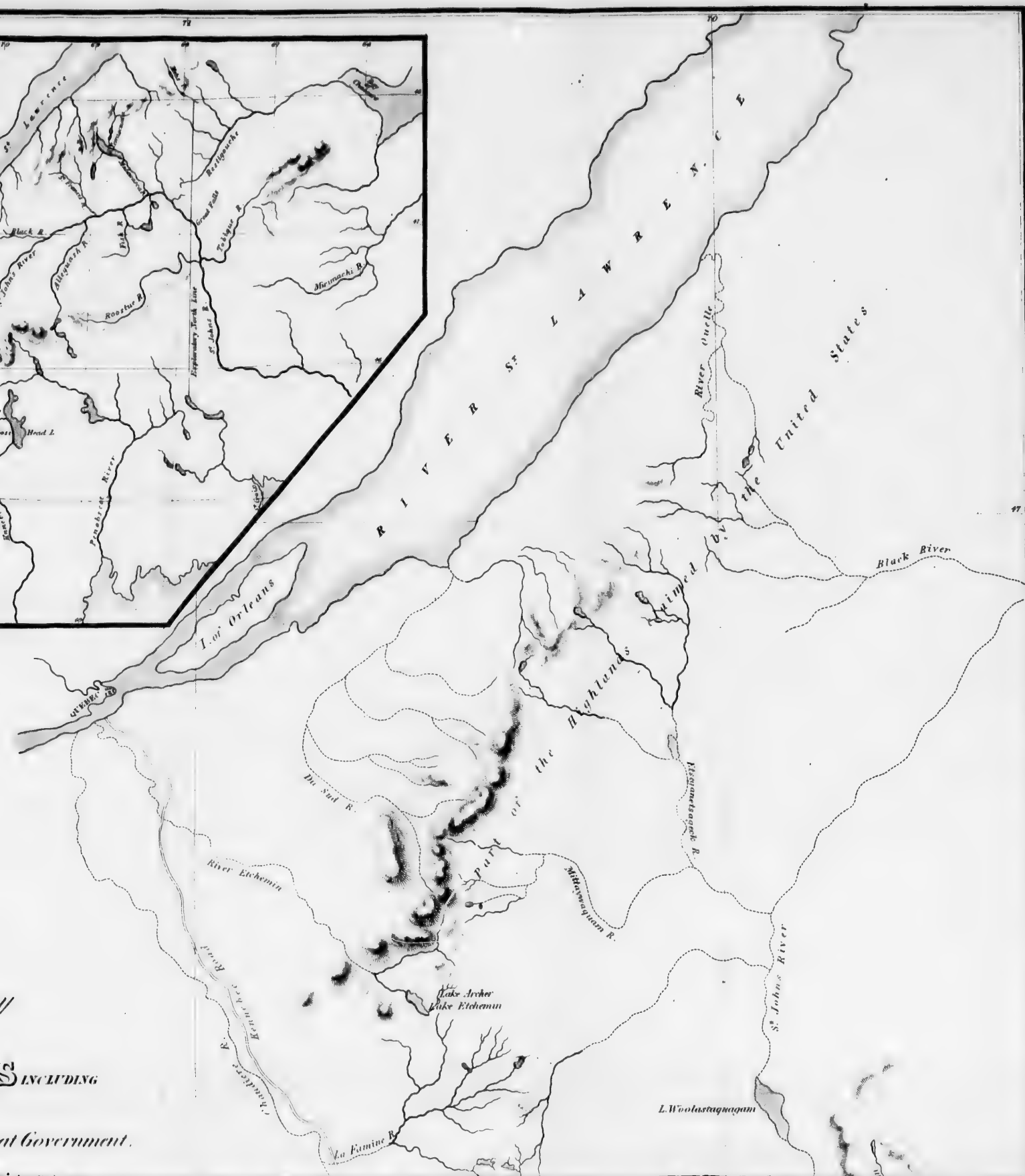
Section continued from Lake Umbagog to the River Ouelle along the division of Waters claimed by the United States on the line of Boundary

Section continued from the Mountains to Lake Umbagog, showing the nature and elevation of the level plain that separates the Highlands of the Province from the Highlands of the State of New Hampshire at the top of 1785 in which the Connecticut River takes its rise

Section above High Tide at Quebec



A MAP
of a portion of the Country
IN DISPUTE
WITH THE UNITED STATES INCLUDING
THE PLAIN
that separates the Highlands claimed by that Government.



INCLUDING
Government.

IN DISPUTE

WITH THE **UNITED STATES** INCLUDING
THE PLAIN

*that separates the Highlands claimed by that Government,
from the Highlands of the Treaty of 1783*

in which latter

HIGHLANDS, THE NORTHWESTERN MOST HEAD OF CONNECTICUT RIVER TAKES ITS RISE.

Constructed by

W. C. Edwards Broughton

Capt. & Royal Engineer

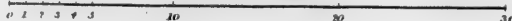
and

James T. Featherstonhaugh

Foreign Office

July 1842

Scale of Miles.



Monument
Bald Mount

L. Macanamae

Mount Goshard

1st Lake of Connecticut R.

6000
5000
4000
3000
2000
1000
0

Lake Umbagog

St. Francis R.

Eaton River

Ben Urban

Gipps Peak

Connecticut River

Connecticut River

Quinn's Corner

ING

ument.

ES RISE.

haugh

Urban

Gipps Peak

Gosford Mountain

Lake Etchemin

La Famine R.

Beaver Dam

Portage R.

Riviere du Loup

Portage R.

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Penobscot River

Bald Mountain

Moose R.

Moose Head Lake

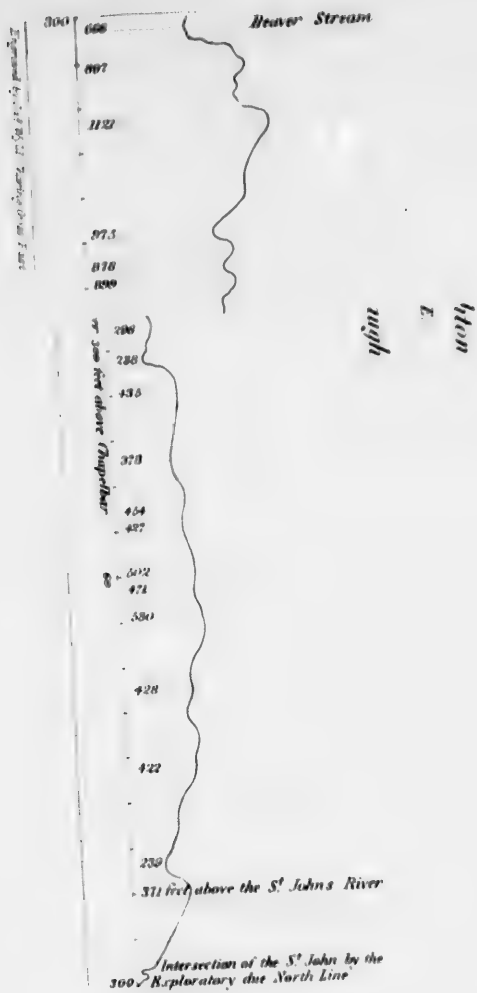
Dead River

Kennebec R.

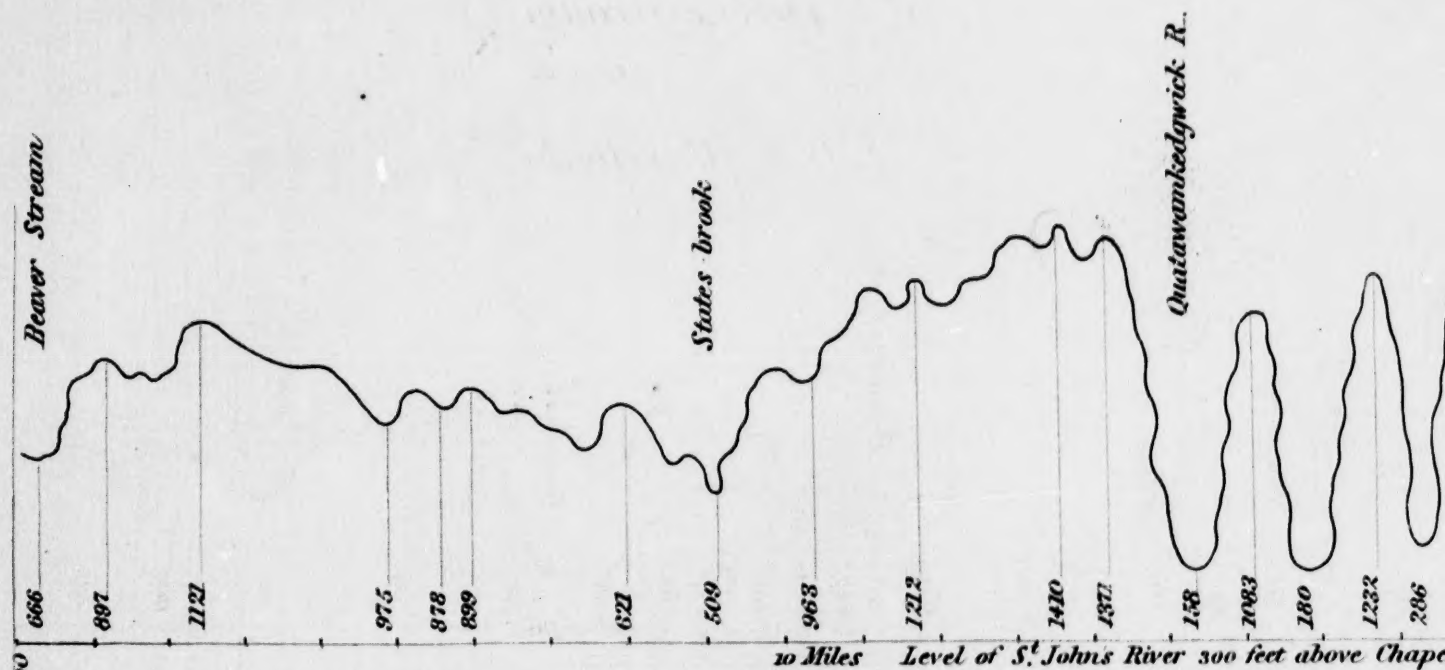
12W

10W

14



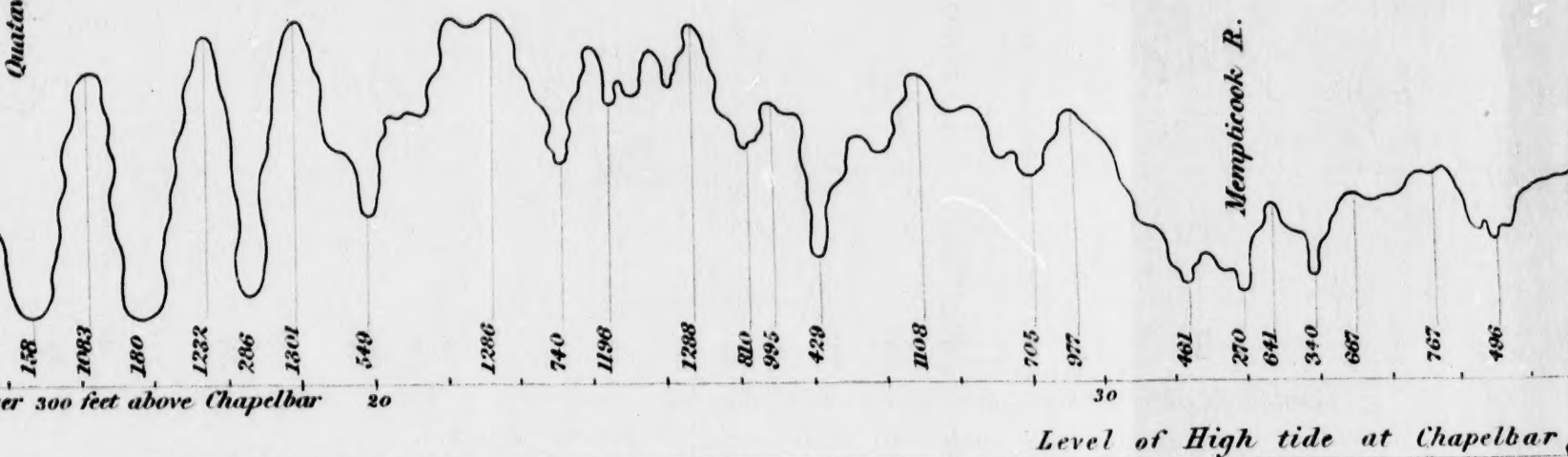
SECTION ALON



Engraved by Jas. Wyld Charing Cross East.

SECTION ALONG THE EXPLORATORY DUE NORTH LINE FROM THE ST. JOHN'S RIVER T

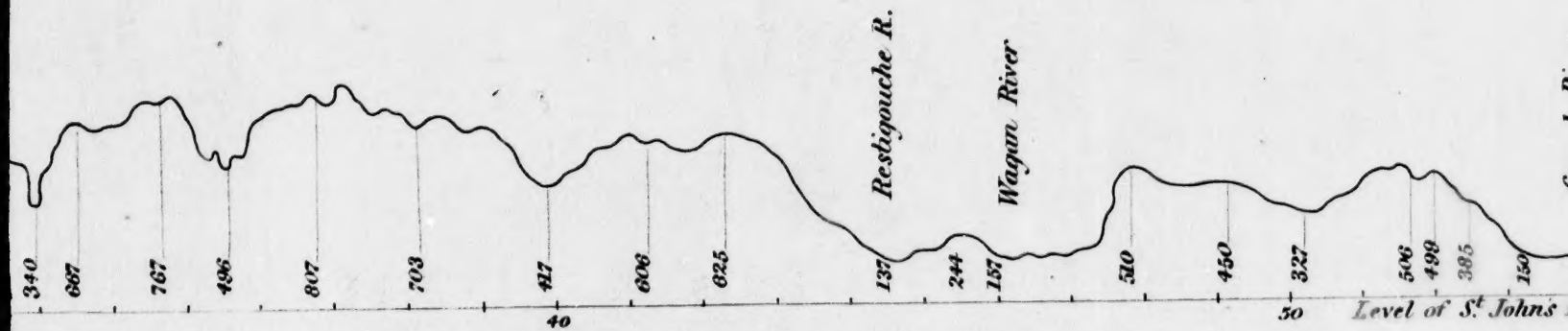
Quatawambedgwick R.



JOHN'S RIVER TO THE BEAVER STREAM, DETERMINED BY SPIRIT LEVEL IN 1840

W. E. Delves Brou
Capt.

J. D. Featherston



Side at Chapelbar St John's River

LEVEL IN 1840.

F. Delves Broughton
Capt. R.E.

D. Featherstonhaugh

